# 1998 LOUISIANA HEALTH REPORT CARD

As mandated by R.S. 40:1300.71

M.J. "Mike" Foster Governor

David W. Hood Secretary, Department of Health and Hospitals

Submitted to the Governor and the Louisiana Legislature April 27, 1998

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### 1998 Louisiana Health Report Card

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### STATE OF LOUISIANA **DEPARTMENT OF HEALTH & HOSPITALS**





**April 1998** 

**SECRETARY** 

Dear Governor Foster and Members of the Louisiana Legislature:

On behalf of the Department of Health and Hospitals (DHH), it is my great pleasure to present the third annual Louisiana Health Report Card in accordance with R. S. 40:1300.71. This legislation, as mandated in the 1995 Regular Legislative Session, has permitted DHH the opportunity to compile information on the health status of Louisiana. The Report Card provides morbidity- and mortality-related statistics, information on current assessment and prevention initiatives, and recommendations to improve the health status of the state's citizens through enhanced programming and increased access to care.

The DHH mission is to protect and promote health and to ensure access to treatment, preventive, and rehabilitative services for all citizens of the State of Louisiana. DHH is dedicated to fulfilling its mission by providing quality services in the most efficient manner possible, assisting in the development and furnishing of services by other entities, and looking ahead to constantly raise our standards. contained in this report reinforces the importance of the DHH mission and reaffirms the Department's commitment to target resources and manpower in those areas where they are most needed.

We submit this report to you and gladly welcome feedback, in our ongoing effort to improve its usefulness. We also welcome discussion on ways in which we can work together to improve the health status of Louisiana.

Sincerely,

David W. Hood

Secretary

### **EXECUTIVE SUMMARY**

Monitoring the health status of a population is an essential step in evaluating the effectiveness of various health programs and in developing programmatic policy for the future. Monitoring the health status of a population relative to certain health status indicators over a number of years is an especially effective tool for health planning. Act 985 of the 1995 Louisiana Regular Legislative Session, enacting R.S. 40:1300.71, requires that the Louisiana Department of Health and Hospitals shall annually prepare a health report card relative to health and health-related issues. This annual health report card shall be submitted at least sixty days prior to each regular session.

The following pages comprise the third annual Health Report Card. This document reports on the overall state of health in Louisiana, addressing at a minimum the following issues:

- Health findings of major diseases
- ♦ Teenage pregnancy and birth rates
- Rates of low birth weight babies
- Suicide rates
- Sexually transmitted diseases
- Incidence of drug addictions
- Violent deaths
- Morbidity rates
- Health assessment programs and results
- Results of preventive health outreach programs
- ♦ Assessment of the state health care delivery system

The report card is divided into seven major sections. The first three sections are <u>Population and Vital Statistics</u>, <u>Morbidity</u>, and <u>Health Assessment Programs</u>. These contain data relative to each health status indicator listed above for the state as a whole and for the parishes within the state. There are comparisons with prior years and with other states. In some cases, variations among different segments of the state's population are reported.

The next three sections address current health care initiatives, the state's health care delivery system, and future measures for health status improvement. These sections are: <a href="Preventive">Preventive</a> Health Outreach Programs, State Health Care System, and Recommendations for Improving Health Status. The final section, <a href="Special Report">Special Report</a>, describes the implementation of Act 622 of the 1997 Legislature, which authorizes establishment of the State Health Care Data Clearinghouse.

This report is the result of efforts by individuals throughout the Department of Health and Hospitals. To contact the individual programs which contributed to this document, please refer to the listing of Program Office telephone numbers in the Appendix.

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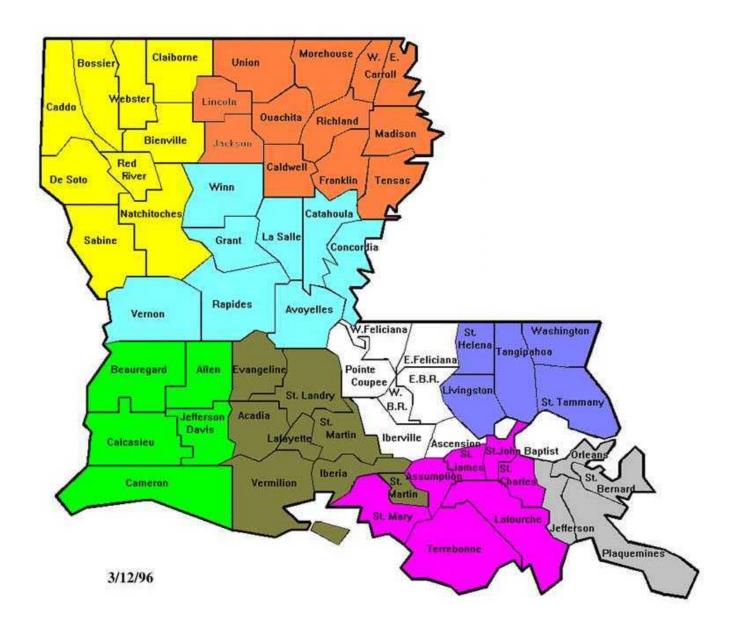
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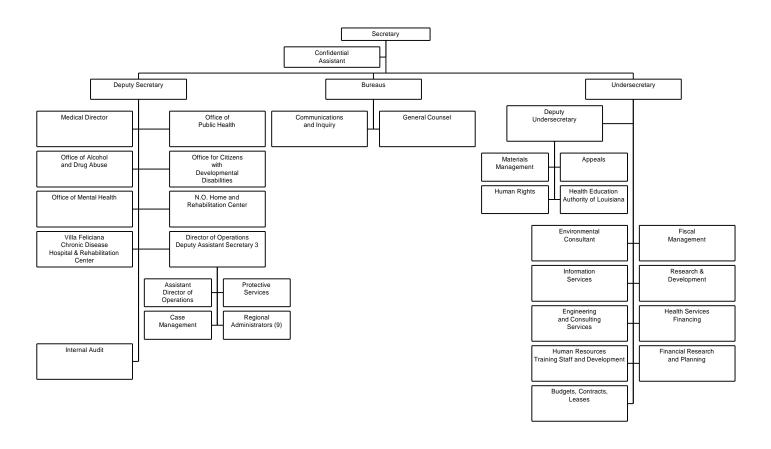
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### Department of Health and Hospitals February 1998



### I. POPULATION AND VITAL STATISTICS

### A. Population

The United States Census Bureau calculates population estimates for the years which fall between their ten-year census counts. According to these estimates, the population of Louisiana as of July 1, 1997 was 4,351,769. The most recent Census Bureau estimates for Louisiana's basic demographic subgroups (i.e., race, gender, and age groups) are for the state's 1996 population. These estimates are given in the following table.

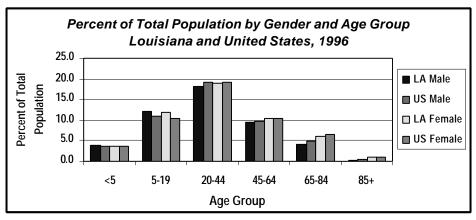
Louisiana Population Count, 1996									
		Age Group							
Race/Gender	<5	5-19	20-44	45-64	65-84	85+	Total		
White Male	96,133	315,700	536,514	308,294	142,477	10,345	1,409,463		
Black Male	67,380	206,777	236,103	97,138	40,655	4,119	652,172		
Other Male	3,438	10,222	14,822	5,838	1,462	141	35,923		
White Female	91,266	301,733	533,612	322,860	196,869	28,422	1,474,762		
Black Female	66,262	203,785	273,815	127,501	61,110	9,033	741,506		
Other Female	3,282	9,802	15,098	6,598	1,777	196	36,753		
Total	327,761	1,048,019	1,609,964	868,229	444,350	52,256	4,350,579		

Source: United States Census Bureau, 1996 Population Estimates

When these figures are compared with Census Bureau estimates of the national population in 1996, Louisiana and the United States have very similar population distributions by gender and age group.

	Percent of Total Population by Gender and Age Group Louisiana and United States, 1996								
					Age Group				
Gender	Location	<5	5-19	20-24	45-64	65-84	85+	All Ages	
	LA	3.8	12.2	18.1	9.5	4.2	0.3	48.2	
Male	US	3.7	11.0	19.1	9.8	4.8	0.4	48.9	
	LA	3.7	11.8	18.9	10.5	6.0	0.9	51.8	
Female	US	3.6	10.5	19.1	10.5	6.5	1.0	51.1	

Source: United States Census Bureau, 1996 Population Estimates

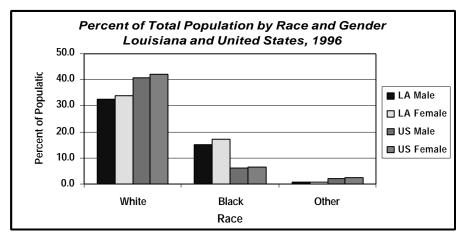


Source: United States Census Bureau, 1996 Population Estimates

Estimates of the population distribution by race, however, show the percentage of African-Americans in Louisiana is more than twice the national average, with 32% in Louisiana versus 12.6% nationally. Individual parishes in Louisiana range from less than 10% to more than 80% African-American.

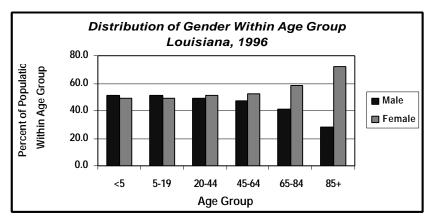
Percent of Total Population by Race and Gender Louisiana and United States, 1996							
	Race						
Gender White Black Other Tot							
LA Male	32.4	15.0	0.8	48.2			
LA Female	33.9	17.0	0.8	51.8			
LA Total	66.3	32.0	1.7	100.0			
US Male	40.7	6.0	2.2	48.9			
US Female	42.1	6.6	2.3	51.1			
US Total	82.8	12.6	4.5	100.0			

Source: United States Census Bureau, 1996 Population Estimates



Source: United States Census Bureau, 1996 Population Estimates

As in the rest of the nation, advancing age brings an increase in the proportion of women to men. Louisiana's 1996 population estimates for the 45 to 64 years age group are 47% male and 53% female. These percentages change to 28% male and 72% female in the 85+ age group.

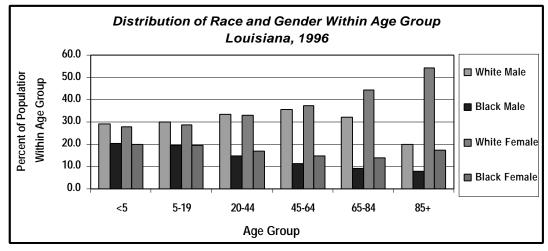


Source: United States Census Bureau, 1996 Population Estimates

Within individual age groups, the race/gender proportions change with advancing age. Prior to age 20, both White males and White females comprise approximately 29% of the population of each age group, and African-American men and women approximately 19%. By age 85+, 54% of the population is White women, 20% is White men, 17% is African-American women, and 8% is African-American men.

Percent of Race and Gender Within Age Group Louisiana, 1996							
			Age Gr	oup			
Race/Gender	<5	5-19	20-44	45-64	65-84	85+	
White Male	29.3	30.1	33.3	35.5	32.1	19.8	
Black Male	20.6	19.7	14.7	11.2	9.1	7.9	
Other Male	1.0	1.0	0.9	0.7	0.3	0.3	
White Female	27.8	28.8	33.1	37.2	44.3	54.4	
Black Female	20.2	19.4	17.0	14.7	13.8	17.3	
Other Female	1.0	0.9	0.9	0.8	0.4	0.4	

Source: United States Census Bureau, 1996 Population Estimates



Source: United States Census Bureau, 1996 Population Estimates

Although 1996 estimates are the most current available for demographic subgroups in Louisiana, the United States Census Bureau has calculated parish-level populations for 1997. The changes in Louisiana's parish populations which occurred between the 1990 census and 1997 estimates are given in the table below.

1997 Population Figures for Louisiana Parishes							
Parish	4/1/90 Census	7/1/97 Estimate	% Change 1990-97	7/1/97 % of State			
Louisiana	4,221,826	4,351,769	3.1	100			
Acadia	55,882	57,691	3.2	1.3			
Allen	21,226	23,908	12.6	0.5			
Ascension	58,214	69,978	20.2	1.6			
Assumption	22,753	22,863	0.5	0.5			
Avoyelles	39,159	40,791	4.2	0.9			
Beauregard	30,083	31,799		0.7			
Bienville	16,201	15,827	-2.3	0.4			
Bossier	86,088	92,750	7.7	2.1			
Caddo	248,253	243,391	-2.0	5.6			
Calcasieu	168,134	178,874	6.4	4.1			
Caldwell	9,806	10,351	5.6	0.2			
Cameron	9,260	9,012	-2.7	0.2			
Catahoula	11,065	11,063	0.0	0.3			
Claiborne	17,405	16,888	-3.0	0.4			
Concordia	20,828	20,741	-0.4	0.5			
DeSoto	25,699	25,091	-2.4	0.6			
E. Baton Rouge	380,105	394,249	3.7	9.1			
E. Carroll	9,709	8,991	-7.4	0.2			
E. Feliciana	19,211	20,825	8.4	0.5			
Evangeline	33,274	34,108	2.5	0.8			
Franklin	22,387	22,068	-1.4	0.5			
Grant	17,526	18,625	6.3	0.4			
Iberia	68,297	72,092	5.6	1.7			
Iberville	31,049	31,129	0.3	0.7			
Jackson	15,924	15,550	-2.3	0.4			
Jefferson	448,306	451,240	0.7	10.4			
Jefferson Davis	30,722	31,675	3.1	0.7			
Lafayette	164,762	184,102	11.7	4.2			
Lafourche	85,860	88,037	2.5	2.0			
LaSalle	13,662	13,751	0.7	0.3			
Lincoln	41,745	41,952	0.5	1.0			
Livingston	70,523	85,470	21.2	2.0			
Madison	12,463	12,987	4.2	0.3			
Morehouse	31,938	31,734	-0.6	0.7			
Natchitoches	37,199	37,285	0.2	0.9			
Orleans	496,938	469,089	-5.6	10.8			

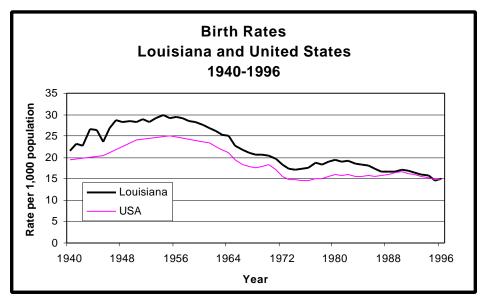
1997 Population Figures for Louisiana Parishes							
	4/1/90	7/1/97	% Change	7/1/97			
Parish	Census	Estimate	1990-97	% of State			
Ouachita	142,191	147,055	3.4	3.4			
Plaquemines	25,575	25,856	1.1	0.6			
Pointe Coupee	22,540	23,636		0.5			
Rapides	131,556	126,491	-3.9	2.9			
Red River	9,518	9,696	1.9	0.2			
Richland	20,629	20,861	1.1	0.5			
Sabine	22,646	23,762	4.9	0.5			
St. Bernard	66,631	66,267	-0.5	1.5			
St. Charles	42,437	47,704	12.4	1.1			
St. Helena	9,874	9,782	-0.9	0.2			
St. James	20,879	20,991	0.5	0.5			
St. John	39,996	42,021	5.1	1.0			
St. Landry	80,312	83,465	3.9	1.9			
St. Martin	44,097	46,769	6.1	1.1			
St. Mary	58,086	56,950	-2.0	1.3			
St. Tammany	144,500	184,590	27.7	4.2			
Tangipahoa	85,709	95,254		2.2			
Tensas	7,103	6,747	-5.0	0.2			
Terrebonne	96,982	103,190	6.4	2.4			
Union	20,796	21,788	4.8	0.5			
Vermilion	50,055	51,693	3.3	1.2			
Vernon	61,961	51,832	-16.3	1.2			
W. Baton Rouge	19,419	20,468	5.4	0.5			
W. Carroll	12,093	12,196		0.3			
W. Feliciana	12,915	13,275	2.8	0.3			
Washington	43,185	43,087	-0.2	1.0			
Webster	41,989	42,597	1.4	1.0			
Winn	16,496	17,769	7.7	0.4			

Source: United States Census Bureau, 1997 Population Estimates

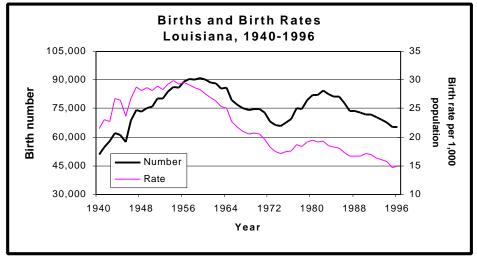
### **B. BIRTHS**

#### LIVE BIRTHS AND BIRTH RATES

In 1996, there were 65,186 births to Louisiana residents. This marked a slight decrease from the number of Louisiana births in 1995 (down 0.59%), while at the national level there was a slight increase (0.39%) in the number of births between 1995 and 1996. Louisiana's 1996 crude birth rate is 15.0 live births per 1,000 population. Because the crude birth rate relates the number of live births to the total population in an area, without regard to the age or sex distribution of the population, it is useful as a measure of the contribution of births to the growth of the population of the area. Louisiana's 1996 crude birth rate was slightly higher than in 1995 (14.7), and also slightly higher than the 1996 national rate (14.8).



Source: Louisiana State Center for Health Statistics
National Center for Health Statistics (preliminary 1996 data)



Source: Louisiana State Center for Health Statistics

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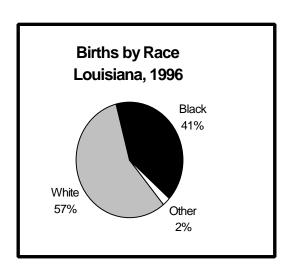
<sup>&</sup>lt;sup>1</sup> Clarke SC and Ventura SJ. Birth and fertility rates for States: United States, 1990. National Center for Health Statistics. Vital Health Stat 21(52). 1994.

In the table below, rates are furnished to provide an idea of Louisiana's standing among the neighboring states. (Note: Although Louisiana's final 1996 rate is available and is reported in this document, National Center for Health Statistics preliminary data for all states have been used in the table below to permit comparison with surrounding states.) Louisiana continues to rank in the top third of the country in terms of birth rate, although the ranking has dropped from 11 in 1995 to 14 in 1996. Among neighboring states, Louisiana's birth rate ranks in the middle.

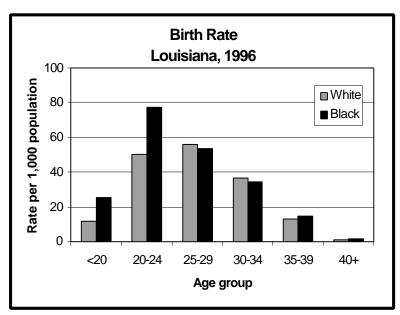
Crude Birth Rate U.S. and Neighboring States, 1996								
Birth Rate National Ranking								
Alabama	14.4	19						
Arkansas	14.5	17						
Louisiana	15.2	14						
Mississippi	15.3	13						
Texas	17.1	3						
United States	14.8	-						

Source: National Center for Health Statistics (preliminary 1996 data)

Although African-Americans represent only 32% of the population of Louisiana, 41% of the live births in 1996 were to African-American mothers. The birth rate for Whites is 12.9 while that of African-Americans is 19.0. Much of the disparity seems to occur in women under the age of 25. Although birth rates for both racial groups peak in the twenties, the birth rate for African-Americans is much higher for mothers less than 25 years old. After the age of 25, birth rates become more comparable.

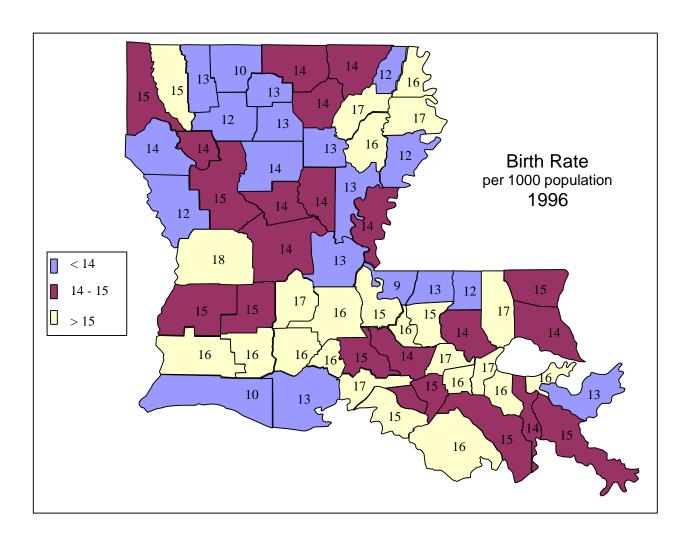


Source: Louisiana State Center for Health Statistics



Source: Louisiana State Center for Health Statistics

There is also disparity among parishes in terms of birth rate. Vernon parish has the highest rate at 18 births per 1,000 population. This is more than twice the rate of West Feliciana (8.6), the parish with the lowest birth rate.



Live Births By Race And Age Of Mother, Parish Of Occurrence And Parish Of Residence													
	Pa	irish (	Of Oc		ce And isiana			Resid	ience				
				Loui	i Siarra	, 1000	Resid	ence					
	Total By							Ag	e In Yea	ars			
Parish	Occurrence	Total	Rate*	Race	Less than15	15-19	20-24	25-29	30-34	35-39	40-44	45+	UNK
Louisiana		65186	15	All	376		19001			4753	869	27	7
		37236		White	65	4939		10991	7856	3037	527	10	
		26503		Black	308	6849		5218	3385	1543	315	12	3
A 12	1462	1447	40.4	Other	3	146		440	329	173	27	5	
Acadia	507	922	16.1	All	5	184		226	124	70	8	0	
	349	685		White	2	121	224	177	101	56	4	0	0
	157	234 3		Black Other	3	63 0	80 1	47 2	23 0	14 0	4	0	0
Allen	0	348	14.5	All	0	59	124	97	40	23	5	0	_
Allen	0	272	14.5	White	0	48	96	77	30	23 17	4	0	0
	0	62		Black	0	8	23	19	7	4	1	0	0
	0	14		Other	0	3	5	1	3	2	0	0	0
Ascension	8	1141	16.8	All	8	175		364	200	82	10	1	0
	3	827		White	1	100			169	63	6	1	0
	5	308		Black	7	73	99	75	31	19	4	0	0
	0	6		Other	0	2	2	2	0	0	0	0	0
Assumption	3	333	14.9	All	1	66	93	86	60	21	6	0	0
	0	169		White	0	21	42	54	39	12	1	0	0
	3	161		Black	1	43	50	32	21	9	5	0	0
	0	3		Other	0	2	1	0	0	0	0	0	0
Avoyelles	8	536	13.1	All	2	100	181	130	85	30	8	0	0
	2	356		White	0	56		98	57	16	6	0	0
	6	176		Black	2	44	56	31	27	14	2	0	0
	0	4		Other	0	0	2	1	1	0	0	0	_
Beauregard	632	454	14.5	All	0	80	164	112	69	27	2	0	0
	496	366		White	0	59	132	89	61	23	2	0	0
	126			Black	0	19		21	5	4	0	0	0
Diopuillo	10	10 195		Other	0	40		2 48	3 26	11		0	0
Bienville	0	93	12.4	All White	1 0	18		30	∠o 11	_	2 1	0	0
	0	101		Black	1	22	38		14	4 7	1	0	0
	0	101		Other	0	0		0	1	0	0	0	
Bossier	721	1420	15.4	All	2	224	_		260	111	14	1	0
2000101	572	1014		White	0	120		301	204	80	11	1	0
	127	381		Black	2	101	110	87	52	27	2	0	0
	22	25		Other	0	3		8	4	4	1	0	
Caddo	5857	3688	15	All	30	676			564	274	37	1	
	2954	1665		White	4	182			333	157	19	1	1
	2826	1980		Black	26	493	720	395	216	113	17	0	0
	77	43		Other	0	1	8	14	15	4	1	0	0

Live Births By Race And Age Of Mother, Parish Of Occurrence And Parish Of Residence Louisiana, 1996													
				Lou	isiaiia	, 1990	Reside	ence					
	Total By							Ag	e In Ye	ars			
Parish	Occurrence	Total	Rate*	Race	Less than15	15-19	20-24	25-29	30-34	35-39	40-44	45+	UNK
Calcasieu	3147	2799	15.7	All	16	532	900	698	461	155	36	0	1
	2266	1957		White	4	311	608	547	362	105	19	0	1
	852 29	816 26		Black Other	12 0	219 2	285 7	142 9	94 5	48 2	16 1	0	0
Caldwell	23	127	12.5	All	2	28	43	32	14	6	1	1	0
	1	98		White	1	22	33	29	9	4	0	0	0
	1	28		Black	1	6	10	3	4	2	1	1	0
	0	1		Other	0	0	0	0	1	0	0	0	0
Cameron	1	89	9.8	All	0	27	22	20	16	3	1	0	0
	1	82		White	0	24	20	18	16	3	1	0	0
	0	7		Black Other	0	3	2	2	0	0	0	0	0
Catahoula	0	140	13	All	0	37	0 59	0 17	20	0 6	0	0	0
Catariouia	0	82	13	White	0	18	35	13	14	2	0	0	0
	0	58		Black	0	19	24	4	6	4	1	0	0
	0	0		Other	0	0	0	0	0	0	0	0	0
Claiborne	97	167	9.7	All	0	37	60	32	26	9	3	0	0
	38	63		White	0	17	26	10	7	3	0	0	0
	59	102		Black	0	20	32	22	19	6	3	0	0
Concordio	0	2	440	Other	0	0	2	0	0	0	0	0	0
Concordia	275 88	294 151	14.2	All White	2	88 29	84 40	66 44	38 28	15 10	0	0	0
	186			Black	2	59	44	21	10	5	0	0	1
	1	1		Other	0	0	0	1	0	0	0	0	0
DeSoto	1	346	13.6	All	3	72	122	86	35	23	5	0	0
	1	160		White	0	23	63	50	13	7	4	0	0
	0	184		Black	3	48	58	36	22	16	1	0	0
	0			Other	0		1	0	0			0	
E. Baton Rouge	9393	6143	15.4	All	35	974		1663	1305	530	86	2	2
	5472 3738	2967 3009		White Black	5 30	244 723		962 636	835 429	325 184	46 36	0 2	0 2
	183			Other	0	723		65	429	21	4	0	0
E. Carroll	0	150	16.2		2	42		28	15	9	3	0	0
-	0	39		White	0	8		10	6	3	1	0	0
	0	111		Black	2	34	40	18	9	6	2	0	0
	0	0		Other	0	0		0	0	0		0	0
E. Feliciana	1	270	13.4	All	3	49		66	33	19	3	0	0
	0			White	0	21	48		22	8	1	0	0
	1	133		Black	3	28		29	11	11	2	0	0
	0	0		Other	0	0	0	0	0	0	0	0	0

	Live Births By Race And Age Of Mother, Parish Of Occurrence And Parish Of Residence Louisiana, 1996												
				200	iorarra,	1000	Reside	ence					
	Total By							Ag	e In Yea	ars			
Parish	Occurrence	Total	Rate*	Race	Less than15	15-19	20-24	25-29	30-34	35-39	40-44	45+	UNK
Evangeline	732	583	16.9	All	3	142	183	159	67	24	5	0	0
	426	375		White	1	81	121	114	37	17	4	0	0
	292	206		Black	2	61	62	45	28	7	1	0	0
Franklin	14	246	15 7	Other All	0 5	0	0	0	2	0	0	0	0
Franklin	3	346 182	15.7	White	0	84 33	113 57	84 53	44 31	11 5	5 3	0	0
	0	163		Black	5	51	56	30	13	6	2	0	0
	0	103		Other	0	0	0	1	0	0	0	0	0
Grant	0	253	13.8	All	2	59	86	54	28	20	4	0	0
	0	203		White	2	44	72	44	24	14	3	0	0
	0	50		Black	0	15	14	10	4	6	1	0	0
	0	0		Other	0	0	0	0	0	0	0	0	0
Iberia	979	1235	17.3	All	8	254	362	308	215	74	14	0	0
	596	706		White	2	112	203	204	132	45	8	0	0
	352	485		Black	6	134	148	96	71	26	4	0	0
	31	44		Other	0	8	11	8	12	3	2	0	0
Iberville	636	431	13.9	All	5	90	131	113	63	22	7	0	0
	124	186		White	0	32	54	64	30	4	2	0	0
	508	243		Black	5	58	76	49	32	18	5	0	0
	4	2		Other	0	0	1	0	1	0	0	0	0
Jackson	5	206	13.3	All	0	41	79	45	26	12	3	0	0
	0	134		White	0	21	53	36	17	6	1	0	0
	5	72		Black	0	20	26	9	9	6	2	0	0
	0	0		Other	0	0	0	0	0	0	0	0	0
Jefferson	8089	6492	14.2	All	27	962	1566	1733	1490	596	113	5	0
	5240			White	10	436	872	1231	1103		80	1	0
	2455 394	1949 391		Black Other	16 1	489 37	623 71	394 108	288 99	115 62	23 10	1 3	0 0
Jefferson Davis	350	497	15.8	All	1	98	165	125	68	30	10	0	0
Jelielson Davis	281	370	13.0	White		61	128	95	57	20	8	0	0
	63	121		Black	0	36	36	28	11	8	2	0	0
	6	6		Other	0	1	1	2	0		0	0	0
Lafayette	4988	2830	15.7	All	10	412	692	827	587	265	37	0	0
	3343	1902		White	3	206	416	599	438	208	32	0	0
	1553	876		Black	7	203	269	207	135	51	4	0	0
	92	52		Other	0	3	7	21	14	6	1	0	0
Lafourche	1122	1276	14.5	All	7	215	337	397	229	79	12	0	0
	999	976		White	3	124	237	340	195	69	8	0	0
	100	262		Black	4	85	80	48	32	9	4	0	0
	23	38		Other	0	6	20	9	2	1	0	0	0

Live Births By Race And Age Of Mother, Parish Of Occurrence And Parish Of Residence													
	Pa	rish (	Of Oc					Resid	dence				
				Lou	<u>isiana</u>	, 1990	Resido	ence					
									je In Yea	ars			
Parish	Total By Occurrence	Total	Rate*	Race	Less than15	15-19	20-24	25-29	30-34	35-39	40-44	45+	UNK
LaSalle	125	190	13.8	All	2	37	74	44	23	10	0	0	0
	77	160		White	1	25	65	38	21	10	0	0	0
	46	28		Black	1	12	8	5	2	0	0	0	0
	2	2		Other	0	0	1	1	0	0	0	0	0
Lincoln	587	544	12.7	All	6	77	194	136	96	34	1	0	_
	298	275		White	0	20		88	67	18	1	0	0
	288	267		Black	6	57	113	48	29	14	0	0	0
	1	2		Other	0	0	0	0	0	2	0	0	0
Livingston	6	1187	14.4	All	1	192	389	349	187	61	7	1	0
	6	1103		White	1	168		333	176	56	6	0	0
	0	82		Black	0	24	25	16	11	4	1	1	0
	0	2		Other	0	0	1	0	0	1	0	0	0
Madison	1	231	17.2	All	3	63	84	48	25	7	1	0	_
	0	65		White	0	15	17	19	11	3	0	0	0
	1	164		Black	3	47	67	29	13	4	1	0	0
	0	2		Other	0	1	0	0	1	0	0	0	0
Morehouse	358	442	13.9	All	9	104	162	104	43	17	3	0	0
	232	213		White	0	43	77	58	26	9	0	0	0
	126	228		Black	9	61	85	45	17	8	3	0	0
Nietaleita ale a a	0	1	45.0	Other	0	0	0	1	0	0	0	0	0
Natchitoches	585	568 271	15.2	All White	3	122	202	124	87 50	22	8	0	_
	289 291			Black	0	39 82	87	75 48	58	9	3	0	0
	5	292 5		Other	3	o∠ 1	112 3	40	29 0	13 0	5 0	0	0
Orleans	9055	7585	15.8	All	49	1542	2335	1565	1320	629	140	5	_
Offearis	2537	1368	15.6	White	2	80	203	359	455	218	50	1	0
	6235	5991		Black	47	1449		1134	814	379	85	3	_
	283			Other	0					32			
Ouachita	3505	2060		All	18	431	621	500	324	135	31	0	
Guacinta	2020			White	3	148					18	0	
	1463	901		Black	15	282					12	0	
	22	16		Other	0	1	233	4	5	3	1	0	_
Plaquemines	6	394		All	1	84			59	22	7	0	_
i iaqaoiiiiioo	1	261	10.0	White	0	51			37	15	I -	0	
	4	117		Black	1	32					1	0	_
	1	16		Other	0	1	5	4	6	0	0	0	
Pointe Coupee	2	356		All	1	69	105		56	25	6	0	
	2	190		White	0	18		61	39	13		0	
	0	164		Black	1	51						0	
	0			Other	0				1	0		0	
	ı			0		J		'	'	J		J	

	Live Births By Race And Age Of Mother, Parish Of Occurrence And Parish Of Residence Louisiana, 1996												
				200	. Orarra	, 1000	Resid	ence					
	Total By							Ag	e In Ye	ars			
Parish	Occurrence	Total	Rate*	Race	Less than15	15-19	20-24	25-29	30-34	35-39	40-44	45+	UNK
Rapides	2945	1823	14.3	All	19	387	557	426	312	108	13	1	0
	1977	1103		White	4	181	326	293	219	70	10	0	_
	942	696		Black	15	205		123	85	36	3	1	0
Dad Diver	26		444	Other	0	1	3	10	8	2	0	0	_
Red River	2	141 66	14.4	All White	3	34 12	51 22	26 16	23 16	4	0	0	0
	'1	74		Black	3	22	29	10	6	4	0	0	0
	0	1		Other	0	0		0	1	0	0	0	0
Richland	3	341	16.7	All	1	80	111	71	57	18	3	0	
rtiornaria	0	167	10.7	White	0	29	57	43	25	11	2	0	0
	3	174		Black	1	51	54	28	32	7	1	0	0
	0	0		Other	0	0	0	0	0	0	0	0	0
Sabine	5	278	11.8	All	1	62	106	62	35	11	1	0	0
	0	192		White	0	42	80	40	24	6	0	0	0
	5	65		Black	1	14	21	17	7	4	1	0	0
	0	21		Other	0	6	5	5	4	1	0	0	0
St. Bernard	6	853	12.6	All	2	145		256	156	55	10	1	0
	5	756		White	2	124		234	143	48	9	1	0
	1	72		Black	0	19	23	15	9	5	1	0	0
0: 0! !	0	25	45.0	Other	0	2	10	7	4	2	0	0	0
St. Charles	3		15.9	All	4	98		208	180	62	8	0	_
	0	494 235		White Black	1 3	40 57	90 85	161 44	149 30	46 15	7	0	0
	3 0	7		Other	0	1	1	3	1	13	0	0	
St. Helena	0	111	11.5	All	0	30	35	28	11	7	0	0	_
Ct. Floidid	0	49	11.0	White	0	10		14	4	2	0	0	_
	0	59		Black	0	19		13	7	4	0	0	0
	0			Other	0			1	0	1		0	0
St. James	1	344	15.9	All	1	52	86	105	70	22	8	0	0
	0	136		White	1	7	27	53	39	7	2	0	0
	1	208		Black	0	45	59	52	31	15	6	0	0
	0	0		Other	0	0	0	0	0	0	0	0	0
St. John	409	693	16.5	All	6	125	173	167	161	55	6	0	0
	234	355		White	0	37	75	99	106	36	2	0	0
	171	332		Black	6	87	96	67	53	19	4	0	_
	4	6		Other	0	1		1	2	0		0	0
St. Landry	1228	1314	16	All	10	283			202	85		0	1
	747			White	1	118		193	117	47	14	0	1
	475			Black	9	164		149	84	38		0	0
	6	6		Other	0	1	1	3	1	0	0	0	0

No.   No.	Live Births By Race And Age Of Mother,													
Parish   Total By   Occurrence   Total   Rate   Race   Race   than   15   20-24   25-29   30-34   35-39   40-44   45 +   UNK		Pa	rish (	Of Oc					Resid	dence				
Parish   P						0,0,10	,		ence					
Pairish   Occurrence   Total   Rate   Race   Less   Is-79   20-24   25-29   30-34   35-39   40-44   45-4   MNK		Total By							Ag	je In Yea	ars			
No.   No.	Parish	_	Total	Rate*	Race		15-19	20-24	25-29	30-34	35-39	40-44	45+	UNK
St. Mary	St. Martin	2		15.3			139		201		_	12	0	0
St. Mary		_				0			_			_	0	0
St. Mary										_			_	_
382   543   White		_								-				_
249   324   Other	St. Mary			15.4										-
St. Tammany										_				
St. Tammany 3152 2489 14.2 All 1 268 559 647 665 283 63 3 0 0 2548 2120 White 1 170 441 575 601 269 60 3 0 0 29 33 Other 0 1 3 15 9 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						_						·		_
2548   2120   White	Ct. Townson	_		440				_		_		_		
S75   336   Black   O   97   115   57   55   9   3   0   0   0   0   0   0   0   0   0	St. rammany			14.2										
29   33   Other   0   1   3   15   9   5   0   0   0   0   0   0   0   0   0														
Tangipahoa						_	_				_			_
State	Tanginahoa			16.5		_				-	_	_		_
Company	Tarigiparioa			10.0										
Tensas		_									_		_	_
Tensas													_	_
O   29	Tensas		81	11.9			24			6	1	0	0	0
Terrebonne		0	29		White	0			12	3	0	0	0	0
Terrebonne		0	52		Black	1	18	20	9	3	1	0	0	0
1305   1139   White   1   188   307   331   214   76   21   1   0     723   369   Black   5   99   115   77   49   20   3   1   0     118   95   Other   2   26   31   23   8   5   0   0   0     Union   1   299   13.8   All   2   67   90   86   32   15   7   0   0     0   203   White   1   34   65   65   25   9   4   0   0     1   94   Black   1   32   25   20   7   6   3   0   0     0   2   Other   0   1   0   1   0   0   0   0   0     Vermilion   206   657   12.9   All   3   117   175   189   127   41   4   1   0     103   507   White   3   85   133   157   92   33   4   0   0     97   136   Black   0   32   37   29   31   7   0   0   0     Vernon   604   952   18   All   1   149   362   256   130   51   2   0   1     422   733   White   0   123   269   199   101   39   1   0   1     140   180   Black   1   22   81   43   22   10   1   0   0     W. Baton Rouge   1   322   15.8   All   0   59   92   102   49   17   2   1   0     W. Baton Rouge   1   180   White   0   26   42   71   33   8   0   0   0     0   140   Black   0   33   50   31   15   8   2   1   0     0   140   Black   0   33   50   31   15   8   2   1   0     0   140   Black   0   33   50   31   15   8   2   1   0      0   140   Black   0   33   50   31   15   8   2   1   0      0   140   Black   0   33   50   31   15   8   2   1   0      0   0   0   0   0   0   0      0   0		0	0		Other	0	0	0	0	0	0	0	0	0
T23   369	Terrebonne	2146	1603	15.8	All	8	313	453	431	271	101	24	2	0
Union		1305	1139		White	1	188	307	331	214	76	21	1	0
Union		723	369		Black	5	99	115	77	49	20	3	1	0
Vermilion         203         White         1         34         65         65         25         9         4         0         0           Vermilion         206         657         12.9         All         3         117         175         189         127         41         4         1         0 </td <td></td> <td>118</td> <td>95</td> <td></td> <td>Other</td> <td>2</td> <td>26</td> <td>31</td> <td>23</td> <td>_</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td>		118	95		Other	2	26	31	23	_	5	0	0	0
Vermilion         1         94         Black Other         1         32         25         20         7         6         3         0         0           Vermilion         206         657         12.9         All         3         117         175         189         127         41         4         1         0           103         507         White         3         85         133         157         92         33         4         0         0           97         136         Black         0         32         37         29         31         7         0         0         0           Vernon         604         952         18         All         1         149         362         256         130         51         2         0         1           Vernon         604         952         18         All         1         149         362         256         130         51         2         0         1           422         733         White         0         123         269         199         101         39         1         0         1           42         39	Union	1		13.8	All	2	67	90	86	32	15	7	0	0
Vermilion         2         Other         0         1         0         1         0         0         0         0         0           Vermilion         206         657         12.9         All         3         117         175         189         127         41         4         1         0           103         507         White         3         85         133         157         92         33         4         0         0           97         136         Black         0         32         37         29         31         7         0         0         0           Vernon         604         952         18         All         1         149         362         256         130         51         2         0         1           Vernon         604         952         18         All         1         149         362         256         130         51         2         0         1           422         733         White         0         123         269         199         101         39         1         0         1           42         39         Other		0				1					9	·	0	_
Vermilion         206         657         12.9         All         3         117         175         189         127         41         4         1         0           103         507         White         3         85         133         157         92         33         4         0         0           97         136         Black         0         32         37         29         31         7         0         0         0           6         14         Other         0         0         5         3         4         1         0         1         0           Vernon         604         952         18         All         1         149         362         256         130         51         2         0         1           422         733         White         0         123         269         199         101         39         1         0         1           140         180         Black         1         22         81         43         22         10         1         0         0           W. Baton Rouge         1         322         15.8         All		· ·											_	
103   507   White   3   85   133   157   92   33   4   0   0   0   0   0   0   0   0   0														
97         136         Black Other         0         32         37         29         31         7         0         0         0           Vernon         604         952         18         All         1         149         362         256         130         51         2         0         1           422         733         White         0         123         269         199         101         39         1         0         1           140         180         Black         1         22         81         43         22         10         1         0         0           W. Baton Rouge         1         322         15.8         All         0         59         92         102         49         17         2         1         0           0         140         Black         0         26         42         71         33         8         0         0         0	Vermilion			12.9								· ·	-	
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0 140 Black 0 33 50 31 15 8 2 1 0	vv. baton Rouge													
												_	_	
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#### Live Births By Race And Age Of Mother, Parish Of Occurrence And Parish Of Residence Louisiana, 1996 Residence Age In Years Total By Total Rate\* 15-19 20-24 25-29 30-34 35-39 40-44 UNK Race Less 45+ Parish Occurrence than15 W. Carroll 12.3 All White Black Other 8.6 W. Feliciana ΑII White Black Other 15.3 Washington ΑII White Black Other Webster 13.4 ΑII White Black Other Winn 13.5 ΑII White Black Other Out Of State\*\* ΑII White Black Other

<sup>\*</sup> Rate per 1000 population

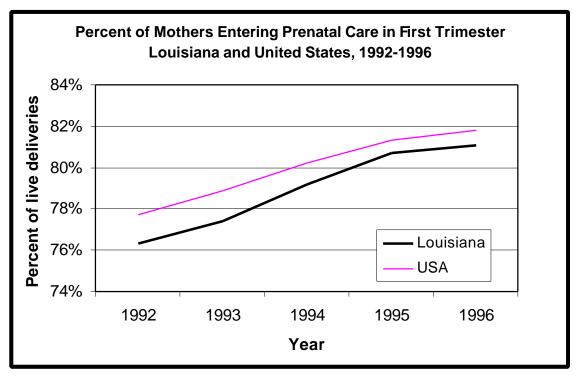
<sup>\*\*</sup>Not included In state totals

### **PRENATAL CARE**

Prenatal care is recognized as an important means of providing medical, nutritional, and educational interventions to reduce the risk of adverse pregnancy outcomes and to identify women at high risk for these outcomes. It has been estimated that for every dollar spent on prenatal care, up to \$3.38 can be saved on direct medical costs.<sup>2</sup> Beyond the positive effect on birth outcomes, prenatal care is a vital part of women's health care, as many women (particularly adolescents, minorities, and women of low socioeconomic status) first enter the health care system during pregnancy.<sup>3</sup>

In this report, adequacy of prenatal care is measured by a modified Kessner index, which defines prenatal care as adequate if the first prenatal visit occurred in the first trimester of pregnancy and if the total number of visits was appropriate to the gestational age of the baby at birth. It should be noted, however, that these measures assess neither the quality nor the content of prenatal care and therefore are most likely overestimates of the adequacy of the care.

Of the 64,308 Louisiana residents who gave birth in 1996, 74.8% received adequate prenatal care. At the national level, the percentage of mothers entering prenatal care in the first trimester has been steadily increasing. Louisiana, while consistently below the national percentage, has shown similar improvement.



Source: Louisiana State Center for Health Statistics National Center for Health Statistics (preliminary 1996 data)

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<sup>&</sup>lt;sup>2</sup> Institute of Medicine. (1994). Prenatal care and low birthweight: Effects on health care expenditures. In: <u>Preventing Low Birthweight.</u> (pp. 212-37) Washington, DC: National Academy Press.

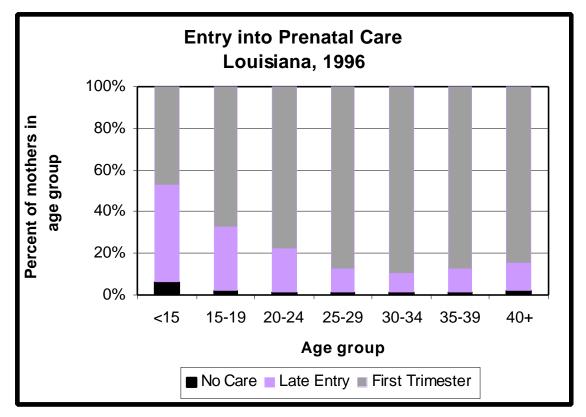
Fiscella, K. (1995). Does prenatal care improve birth outcomes? A critical review. Obstetrics & Gynecology 85, 468-79.

In the table below, percentages are furnished to provide an idea of Louisiana's standing among the neighboring states. (As previously noted, preliminary NCHS numbers are used for across-state comparisons.) In 1996, 81.1% of Louisiana residents who gave birth entered prenatal care in the first trimester, as compared to 81.8% of mothers in the U.S. Louisiana ranked 36th in the nation and second among neighboring states.

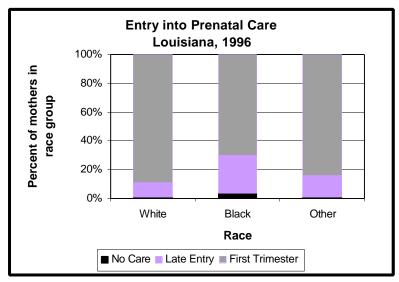
Percent of Mothers Receiving Prenatal Care in the First Trimester of Pregnancy U.S. and Neighboring States, 1996									
Percent of Mothers National Ranking									
Alabama	81.7	32							
Arkansas	74.7	48							
Louisiana	81.1	36							
Mississippi	78.4	45							
Texas 78.2 46									
United States 81.8 -									

Source: National Center for Health Statistics (preliminary 1996 data)

Less than half (47.3%) of mothers under the age of 15 started prenatal care in the first trimester of pregnancy, and 6.5% of this age group never received any prenatal care. However, entry into care improved with age before leveling off in the mid-twenties.

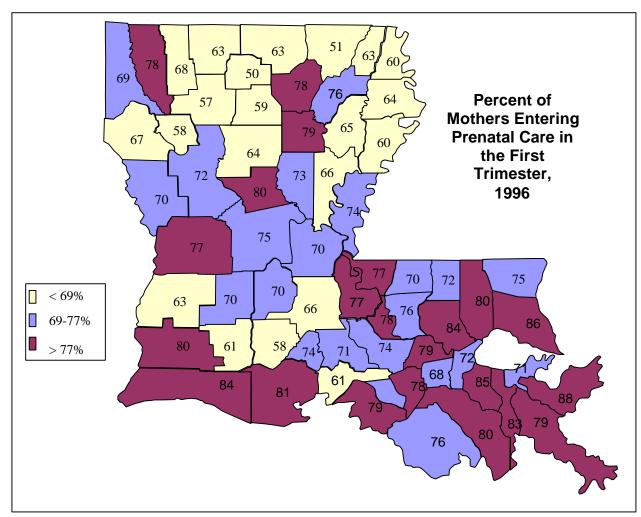


Source: Louisiana State Center for Health Statistics



Source: Louisiana State Center for Health Statistics

African-American women entered into prenatal care in a timely manner less frequently than Whites and other races. Only 70.3% of African-American mothers had their first prenatal visit in the first trimester, compared to 88.6% of White mothers. Also, 4.2% of African-American mothers received no prenatal care, as compared to 1.2% of White women.



Source: Louisiana State Center for Health Statistics

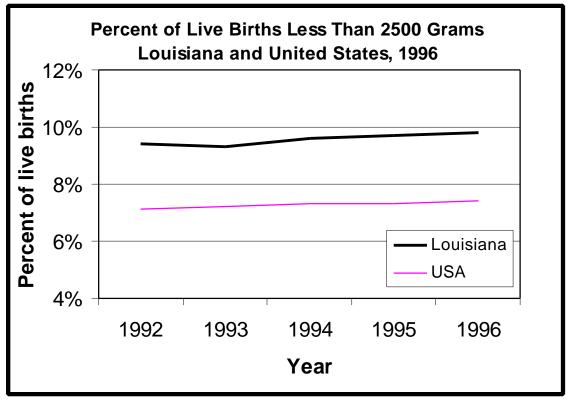
Percent of Women	Receivina A	Adequate*	Prenatal Ca	are. Louisia	ana 1996
Parish	1992	1993		1995	1996
Louisiana	68.2	70.1	71.8	73.5	74.8
Acadia	69.6	65.7	52.6	50.3	57.7
Allen	59.2	63	64.7	63.3	70.4
Ascension	73.8	76.3	78.3	79.5	79.1
Assumption	71.3	75.7	75.2	75.5	78.2
Avoyelles	58.3	57.1	61.1	64.4	70.0
Beauregard	63	58.5	60.7	60.7	63.5
Bienville	46.9	57	58.1	61.5	57.2
Bossier	72.9	77.2	77.2	79.5	77.9
Caddo	59.4	69.1	70.4	71	69.5
Calcasieu	74.9	76.3	78.3	80	79.6
Caldwell	72.7	71.6	75.4	80.7	79.4
Cameron	73.6	79.8	81.5	88.6	84.3
Catahoula	69	73.5	71	74.3	65.7
Claiborne	44.1	53.4	58.1	67.4	63.4
Concordia	61.5	67.1	65.9	72.7	73.7
DeSoto	53.1	68.1	69.2	68.8	66.8
E. Baton Rouge	72.2	72	74.5	78.3	75.7
E. Carroll	52.6	57.2	56.1	55.9	69.6
E. Feliciana	61.4	63.7	65.8	67.7	60.1
Evangeline	61.9	65.1	66.2	62.7	69.7
Franklin	68.5	66.2	71.7	74.6	65.4
Grant	69.7	63	72.4	77	79.8
Iberia	74	64.6	66.5	66.9	61.2
Iberville	61.4	67.9	73	75.4	74.4
Jackson	53.5	47.2	47.9	57.8	59.1
Jefferson	75.6	77.9	79.4	81.6	61.1
Jefferson Davis	58.4	59.5	58.6	62.6	83.3
Lafayette	77.5	76.2	79	72.5	74.1
Lafourche	74.7	74.6	78	83.4	79.8
LaSalle	68	66.8	68.7	65.7	72.9
Lincoln	40.3	43.9	36.7	48.6	49.9
Livingston	78.1	83.3	79.4	79.7	83.9
Madison	60.3	52.1	57.1	56.8	64.4
Morehouse	53.9	53.2	55.6	50	50.6
Natchitoches	59.7	61.4	60.7	73.7	72.0
Orleans	59.7	65	66.7	65.8	71.4
Ouachita	70	66.3	74.2	78.3	78.0
Plaquemines	74.4	75.4	71.7	74	79.0
Pointe Coupee	68.9	68.2	69.1	76.5	76.5
Rapides	66.4	62.7	68	70.3	74.7
Red River	59.9	71.2	69	74.5	58.0
Richland	65.8	70.3	63.9	68.5	75.7
Sabine	56	66.2	64.4	72.9	69.8
St. Bernard	76.1	82	85.5	86.7	88.5
St. Charles	71.8	78	80.7	80	84.9
St. Helena	70.9	81.7	73.8	68.4	71.6
St. James	55.7	63	65.2	65.5	68.2
St. John	57.5	64.9	64.7	62.9	72.1
St. Landry	61.2	54.5	57.4	62	66.1
St. Martin	71.2	65.9	70.6	70.2	70.8
St. Mary	74.1	75.1	77.3	76.9	79.0
St. Tammany	82.4	84.5	85.8	87.3	86.0
Tangipahoa	74.6	79.1	72.8	78.8	79.8
Tensas	68.7	71.1	72.2	67.6	60.0
Terrebonne	72.8	70.2	71	75.9	76.1
Union	55.5	56.3	59.7	66.1	63.1
Vermilion	74.4	71.6		77.1	81.0
Vernon	70.5	68.6	75.7 75.7	76.8	76.9
W. Baton Rouge	70.3	71.7	73.7	70.8 79.3	74.9
W. Carroll	62.6	59.9	64.9	64.4	67.9
W. Feliciana	63.5	68.1	65.1	75.8	63.3
Washington	43.5	57.4	62	65.6	78.4
Webster	60.9	72.5	69.7	72.6	76.4 76.9
Winn	57.6	47.5	49.1	72.0 51.4	64.0
*According to modified Kessne		47.0	+3.1	J1.4	04.0

\*According to modified Kessner index Source: Louisiana State Center for Health Statistics

### **LOW BIRTH WEIGHT**

A low birth weight infant is conventionally defined as an infant weighing less than 2500 grams (5 pounds, 8 ounces) at birth. Low birth weight is a major cause of infant mortality, with more than three-quarters of infant deaths caused by babies being born too small or too early.<sup>4</sup> This contributes significantly to later childhood handicap as well. Low birth weight infants are more likely to have brain damage, lung and liver disease, subnormal growth, developmental problems, and other adverse health conditions. The effects of low birth weight follow these infants throughout life, as they are more likely to have mild learning disorders, attention disorders, and developmental impairments.<sup>5</sup> A higher proportion of low birth weight infants also go on to be enrolled in special education classes than their normal birth weight counterparts.6

In 1996, 6,450 of the infants born to Louisiana residents weighed less than 2500 grams. This represents 9.9% of the live births that year, as compared to 7.4% of the babies born in the U.S. who were low birth weight. In recent years, neither Louisiana nor the nation has shown any significant reduction in the percentage of infants born with low birth weight.



Source: Louisiana State Center for Health Statistics National Center for Health Statistics (preliminary 1996 data)

<sup>4</sup> Paneth NS. (1995) The problem of low birth weight. In <u>The Future of Children, Low Birth Weight</u> (19-34).

<sup>&</sup>lt;sup>5</sup> Institute of Medicine. (1985). The significance of low birthweight. In: <u>Preventing low birthweight</u>. (pp. 21-45). Washington, DC: National Academy Press.

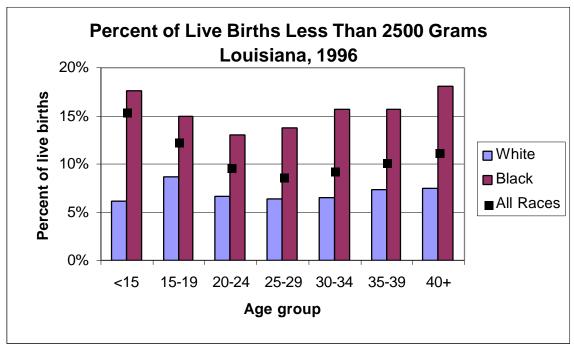
Hack M, Klein NK, Taylor HG. Long-term developmental outcomes of low birth weight infants. The Future of Children, Low Birth Weight 1995;5:19-34.

In the table below, percentages are furnished to provide an idea of Louisiana's standing among the neighboring states in terms of low birth weight infants. (As previously noted, preliminary NCHS rates are used for across-state comparisons.) In 1996, Louisiana had the second highest percentage of low birth weight babies in the nation. Louisiana also ranked second among neighboring states, which had some of the highest percentages in the nation.

Percent of Live Births Less Than 2500 Grams U.S. and Neighboring States, 1996								
	Percent of Live Births	National Ranking						
Alabama	9.3	3						
Arkansas	8.5	8						
Louisiana	9.8	2						
Mississippi	9.9	1						
Texas	7.2	30						
United States	7.4	-						

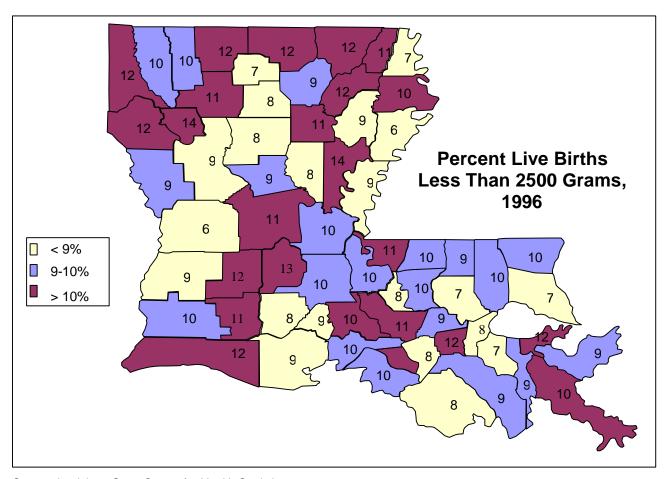
Source: National Center for Health Statistics (preliminary 1996 data)

African-Americans gave birth to infants of low birth weight more than twice as frequently as White women did, at 14.3% compared to 6.9% of live births. This discrepancy held true for all age groups. Examination of births by age groups found mothers less than 15 years old had the highest percentage of low birth weight babies (15.4% of live births), as well as the greatest discrepancy between White mothers (6.2% of births were low weight) and African-American mothers (17.5% of births were low weight).



Source: Louisiana State Center for Health Statistics

Catahoula parish had the highest percentage of low birth weight babies at 14.3% of live births, and Tensas parish had the lowest at 6.2% of live births.



Source: Louisiana State Center for Health Statistics

Infants weighing less than 1500 grams at birth are considered to be very low birth weight and are at much greater risk of mortality and long-term disability. The risk of early death for a very low birth weight infant is about 65 times that of infants who weigh at least 1500 grams. In 1996, 1.9% of infants born to Louisiana residents weighed less than 1500 grams, as compared to 1.4% of infants born to U.S. residents. As with infants weighing less than 2500 grams, there were demographic differences in the mothers giving births to very low birth weight infants. African-American mothers gave birth to very low birth weight infants three times as frequently as White mothers did, at 3.1% compared to 1.1% of live births. Infants born to young mothers and older mothers of all races were also more frequently very low birth weight. Of all infants born to mothers under the age of 20, 2.3% were very low birth weight, and 2.2% of infants born to mothers over the age of 40 weighed less than 1500 grams.

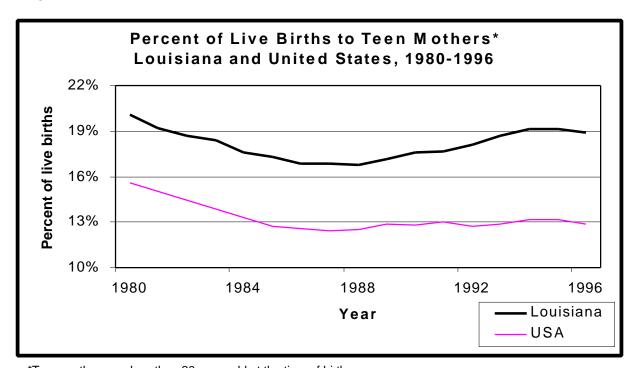
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<sup>&</sup>lt;sup>7</sup> Ventura SJ, Martin JA, Curtin SC, Mathews TJ. Report of final natality statistics, 1995. Monthly vital statistics report; vol 45 no 11, supp. Hyattsville, Maryland: National Center for Health Statistics. 1997.

### **TEEN BIRTHS**

Despite an overall decrease in teen birth rates over the last two decades, teenage pregnancy continues to be a problem for the nation. Teen mothers are less likely to receive adequate prenatal care and are more likely to give birth to low birth weight infants. These infants are also more likely to be hospitalized and go on to have childhood health problems. Most (76%) births to teens occur outside of marriage, and 25% of teenage mothers go on to have more children within the next two years. These factors, combined with the fact that teenage mothers are less likely to finish high school, contribute to the high proportion of women living in poverty who first gave birth during adolescence. In 1993, of the 3.8 million mothers aged 15-44 who received welfare or Aid to Families with Dependent Children (AFDC), 55% first became mothers as teenagers. In fiscal year 1995, Louisiana spent over \$875 million on programs that support families begun by teens (in the form of AFDC, Food Stamps, WIC, and Medicaid). In contrast, Louisiana spent only \$5.7 million on programs designed to prevent teenage pregnancy.

In 1996, there were 12,310 live births to Louisiana residents under the age of 20. This represents 18.9% of the total live births to Louisiana residents that year. This is compared to 13.0%, the national percentage of live births to teens for 1996.



\*Teen mothers are less than 20 years old at the time of birth

Source: Louisiana State Center for Health Statistics

National Center for Health Statistics (preliminary 1996 data)

<sup>8</sup> Lewis CT, Mathews TJ, Heuser RL. Prenatal care in the United States, 1980–94. National Center for Health Statistics. Vital Health Stat 21(54). 1996.

The Alan Guttmacher Institute. Sex and America's Teenagers 1994.

<sup>11</sup> The Alan Guttmacher Institute. *Issues in Brief.* February 1995.

<sup>12</sup> Kreutzer, Tracy A. *Expenditures and Investments: Adolescent Pregnancy in the South* Volume II. (1997), Southern Regional Project on Infant Mortality. Washington, DC.

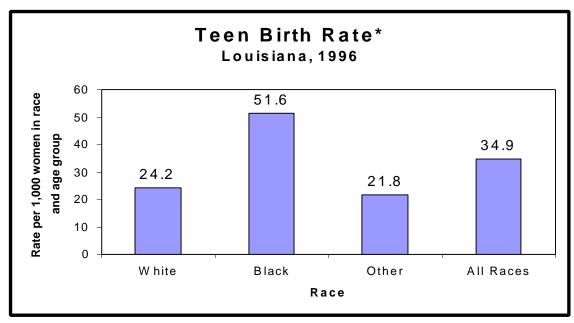
<sup>&</sup>lt;sup>9</sup> Ventura SJ, Martin JA, Mathews TJ, Clarke SC. Advance report of final natality statistics, 1994. Monthly vital statistics report; vol 44 no 11, supp. Hyattsville, Maryland: National Center for Health Statistics. 1996.

In the table below, percentages are furnished to provide an idea of Louisiana's standing among the neighboring states in terms of births to teenagers. (As noted previously, preliminary NCHS numbers are used to facilitate across-state comparisons.) Louisiana has consistently ranked near the top of the states in terms of percentage of live births to teens, and 1996 was no exception. Louisiana had the third highest percentage of live births to teens in the nation, one of the four Southern states at the top of the list.

Percentage of Live Births to Teens* U.S. and Neighboring States, 1996											
Percent of Live Births National Ranking											
Alabama	18.6	4									
Arkansas	20.0	2									
Louisiana	18.9	3									
Mississippi	21.7	1									
Texas	16.4	11									
United States	13.0	-									

\*Teens mothers are less than 20 years old at the time of birth Source: National Center for Health Statistics (preliminary 1996 data)

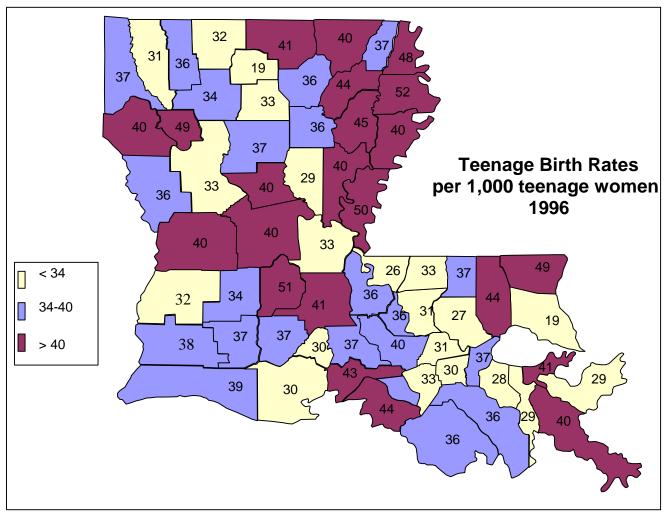
To make comparisons of births among teens in different race groups meaningful, teen birth rates have been calculated by relating the number of teen births in each race group to the total number of teen women in the same race group. This method of calculating teen birth rates controls for differences in the proportion of women in the race groups, and is the method used by the National Center for Health Statistics (NCHS).<sup>13</sup> In Louisiana, the birth rate for African-American teenagers in 1996 was more than twice that of White teenagers, at 51.6 compared to 24.2 births per 1,000 women in the respective age and race groups.



\*Teen mothers are less than 20 years old at the time of birth Source: Louisiana State Center for Health Statistics

<sup>&</sup>lt;sup>13</sup> Clarke SC and Ventura SL. Birth and fertility rates for States: United States, 1990. National Center for Health Statistics. Vital Health Stat 21(52). 1994.

There is also considerable variation in teenage birth rates by parish. Madison parish has the highest rate at 51.8 births per 1,000 teenage women. This is almost three times the rate of Lincoln, the parish with the lowest rate at 18.7 births per 1,000 teenage women.



\*Teen mothers are less than 20 years old at the time of birth Source: Louisiana State Center for Health Statistics

	Percen	t of T	otal Li	ve Biri	ths to	Teena	aers	15-19 Y	ears c	of Age.	Louis	siana. 1	1996		
Parish	1 0,000		5-17 Yea					18-19 Yea		,, , igo,	20070		-19* Ye	ars	
7 471077	92	93	94	95	96	92	93	94	95	96	92	93	94	95	96
Louisiana	7	7	8	7	7	10	11	11	11	11	18	18	19	19	18
Acadia	6	7	8	8	7	12	13	13	12	13	18	20	21	21	20
Allen	9	8	9	8	6	15	13	14	13	11	23	21	23	21	17
Ascension	6	6	6	5	6	10	7	8	10	8.9	16	13	15	15	15
Assumption	3	6	10	6	6	10	8	11	12	14	13	14	21	18	20
Avoyelles	7	8	9	7	7	11	12	13	13	11	18	20	22	20	19
Beauregard	7	6	7	4	5	12	15	11	13	12	19	22	19	17	18
Bienville	9	9	7	5	10	14	11	10	14	10	23	20	17	19	21
Bossier	5	7	7	5	6	9	8	10	10	10	14	15	16	16	16
Caddo	8	8	8	8	8	11	11	11	12	11	19	20	20	19	18
Calcasieu	7	8	<u>7</u> 4	7 11	6	10	11	11	12	13	16	19	18	19	19
Caldwell Cameron	9 5	7 6	4 6	5	10 9	20 8	14 8	11 9	11 9	12 21	29 13	21 14	16 14	22 14	22 30
Catahoula	9	9	9	11	6	12	17	13	14	20	22	26	22	25	26
Claiborne	10	12	10	10	13	13	13	14	8	9	23	25 25	24	19	22
Concordia	10	14	16	14	10	13	14	16	18	20	23	28	33	32	30
DeSoto	8	9	7	9	8	8	10	12	14	13	16	19	19	24	21
E. Baton Rouge	5	6	6	6	6	8	8	9	9	10	14	14	15	14	16
E. Carroll	19	15	12	14	7	11	16	16	13	8.1	30	31	28	27	16
E. Feliciana	8	7	9	5	9	12	11	11	11	24	20	18	19	16	33
Evangeline	9	8	10	8	10	11	15	9	14	14	20	23	19	23	24
Franklin	11	9	11	9	8	15	19	15	14	16	26	27	25	23	24
Grant	8	9	6	6	9	10	15	14	16	14	18	25	20	22	23
Iberia	7	10	8	9	10	10	10	11	15	11	17	20	19	24	21
Iberville	7	6	6	7	8	10	14	10	11	13	17	20	16	18	21
Jackson	8	6	10	7	8	13	11	14	14	12	21	16	25	22	20
Jefferson	6	6	6	5	7	8	8	9	10	12	14	14	15	15	20
Jefferson Davis	9	7	8	8	6	11	10	12	13	8.8	20	17	20	21	15
Lafayette	5	5	5	5	5	7	7	8	10	9.2	12	13	13	15	15
Lafourche	6	6	6	8	6	9	10	10	10	11	14	16	15	18	17
LaSalle	9	11	8	9	7	15	11	13	10	12	24	23	20	19	19
Lincoln	7	6	8	8	7	12	12	10	9	7	19	18	18	17	14
Livingston	6	6	5	6	5	11	12	11	11	11	18	18	16	18	16
Madison	14	12	12	14	10	12	16	14	13	17	27	28	27	27	27
Morehouse	14	13	14	15	10	12	18	16	15	13	26	31	30	30	24
Natchitoches	11	10	10	9	8	9	13	14	15	14	20	22	23	24	21
Orleans	10	10	10	10	9	13	13	13	12	12	23	23	23	22	20
Ouachita	8	9	10	7	8	12	13	13	12	13	20	21	23	19	21
Plaquemines	6	7	10	6	10	8	13	9	11	12	14	20	19	17	21
Pointe Coupee	8	8	7	7	10	8	10	13	12	9.6	16	17	20	19	19
Rapides	7	8	8	7	7	11	12	12	14	14	18	20	20	21	21
Red River	10	6	10	6	9	10	10	17	13	15	19	17	27	19	24
Richland	10	13	13	14	10	17	14	16	15	14	27	27	29	29	23
Sabine	9	10	9	8	9	15	14	13	16	13	25	23	23	24	22
St. Bernard	6	6	5	6	6	12	10	10	10	11	17	15	15	15	17
St. Charles	6	5	5	7	4	8 11	9	9 13	<u>6</u> 15	9.1	14 14	14 14	14 20	13	13
St. Helena St. James	3 7	6 7	8 6	8 8	10 7	9	9 11	10	9	17 8.4	16	17	20 16	23 18	27 15
St. John	5	7	7	6	6	9	8	9	9 11	12	14	17	16	17	18
St. Landry	6	8	9	7	8	11	11	12	12	13	17	19	21	17	22
St. Martin	6	6	8	6	8	7	9	12	12	12	13	15	20	18	20
St. Mary	8	8	8	9	9	11	9	13	14	14	19	17	21	23	23
St. Tammany	5	5	5	9 5	9 5	8	7	8	8	6.2	13	17	12	23 13	23 11
Tangipahoa	10	10	9	8	9	13	12	14	14	14	23	23	24	22	23
Tensas	10	8	13	11	12	10	18	16	19	17	20	26	28	31	30
Terrebonne	7	6	7	7	8	11	10	11	11	11	18	16	18	18	20
Union	9	11	13	8	8	11	12	10	13	15	21	23	23	22	22
Vermilion	7	6	6	7	5	9	11	12	12	12	16	17	18	19	18
Vernon	4	4	4	4	4	8	11	11	12	12	12	16	15	16	16
W. Baton Rouge	2	5	7	4	10	11	11	7	12	15	14	16	13	16	25
W. Carroll	8	7	7	7	9	19	12	10	13	11	26	18	16	21	20
W. Feliciana	4	5	8	10	7	8	6	10	5	17	12	11	17	15	23
Washington	9	8	12	11	7	13	12	12	19	11	22	20	24	30	18
Webster	10	9	10	8	6	11	11	13	14	11	21	20	23	22	17
Winn	7	10	10	12	7	13	13	11	13	13	20	23	21	25	19
*May not oqual cui								- '							

\*May not equal sum of "15-17 Years" and "18-19 Years" due to rounding Source: Louisiana State Center for Health Statistics

Births	by Parish, Race o	of Mother, and Se Louisiana, 1996	elected Characte	ristics
Parish	Total Births	Percent with Adequate Prenatal Care	Percent Low Weight Births (<5.8 lbs.) 1992-1996	% Births to Mothers Under Age 20 Years
Louisiana	65186	74.8	9.6	18.9
White	37236	83.6	6.5	13.4
Black	26503	62.3	13.9	27.0
Other	1447	77.4	6.4	10.3
Acadia	922	57.7	8.2	20.5
White	685	64.8	5.4	18.0
Black	234	37.0	15.6	28.2
Other	3	33.3	0.0	0.0
Allen	348	70.4	9.2	17.0
White	272	76.6	7.7	17.6
Black	62	39.3	14.0	12.9
Other	14	85.7	8.8	21.4
Ascension	1141 827	79.1	8.7	16.0
White Black	308	84.5 65.4	6.7 13.7	12.2 26.0
Other	6	50.0	4.6	33.3
	333	78.2	9.1	20.1
Assumption White	169	83.9	6.4	12.4
Black	161	72.3	12.5	27.3
Other	3	66.7	0.0	66.7
Avoyelles	536	70.0	9.1	19.0
White	356	82.5	7.4	15.7
Black	176	45.4	12.3	26.1
Other	4	50.0	0.0	0.0
Beauregard	454	63.5	7.3	17.6
White	366	67.8	6.5	16.1
Black	78	38.2	11.5	24.4
Other	10	100.0	6.7	20.0
Bienville	195	57.2	11.5	21.0
White	93	75.0	8.5	19.4
Black	101	41.6	14.3	22.8
Other	1	0.0	0.0	0.0
Bossier	1420	77.9	8.6	15.9
White	1014	85.6	6.9	11.8
Black	381	57.3	13.5	27.0
Other	25	80.0	4.2	12.0
Caddo	3688	69.5	11.3	19.1
White	1665	86.9	6.9	11.2
Black	1980	54.7	15.1	26.2
Other	43	78.6	8.6	2.3

Births I	by Parish, Race o	of Mother, and Se Louisiana, 1996	elected Characte	ristics										
	Percent Low													
Parish	Total Births	Percent with Adequate Prenatal Care	Percent Low Weight Births (<5.8 lbs.) 1992-1996	% Births to Mothers Under Age 20 Years										
Calcasieu	2799	79.6	9.1	19.6										
White	1957	84.4	7.0	16.1										
Black	816	68.1	14.2	28.3										
Other Caldwell	26 127	80.8 79.4	9.8 8.2	7.7 23.6										
White	98	79.4 82.5	6.1	23.5										
Black	28	67.9	17.2	25.0										
Other	1	100.0	0.0	0.0										
Cameron	89	84.3	9.8	30.3										
White	82	85.4	9.4	29.3										
Black	7	71.4	15.4	42.9										
Other	0	0.0	0.0	0.0										
Catahoula White	140 82	65.7 67.5	7.6 4.5	26.4 22.0										
Black	58	63.2	4.5 12.8	32.8										
Other	0	0.0	0.0	0.0										
Claiborne	167	63.4	11.4	22.2										
White	63	76.2	6.2	27.0										
Black	102	54.6	14.4	19.6										
Other	2	100.0	25.0	0.0										
Concordia	294	73.7	10.0	30.6										
White Black	151 142	84.7 62.0	6.0 14.0	19.2 43.0										
Other	142	100.0	0.0	0.0										
DeSoto	346	66.8	10.6	21.7										
White	160	80.1	6.7	14.4										
Black	184	55.0	13.6	27.7										
Other	2	100.0	0.0	50.0										
E. Baton Rouge	6143	75.7	10.3	16.4										
White	2967	89.4	6.1	8.4										
Black Other	3009 167	62.0 78.3	14.8 7.5	25.0 4.2										
E. Carroll	150	60.1	11.0	29.3										
White	39	79.5	6.7	20.5										
Black	111	53.2	12.3	32.4										
Other	0	0.0	0.0	0.0										
E. Feliciana	270	69.6	10.5	19.3										
White	137	84.4	7.8	15.3										
Black	133	54.2	13.3	23.3										
Other	0	0.0	0.0	0.0										

Births	by Parish, Race o	of Mother, and Se Louisiana, 1996	elected Characte	ristics
Parish	Total Births	Percent with Adequate Prenatal Care	Percent Low Weight Births (<5.8 lbs.) 1992-1996	% Births to Mothers Under Age 20 Years
Evangeline	583	69.7	10.7	24.9
White	375	79.5	7.1	21.9
Black	206	51.7	16.3	30.6
Other	2	100.0	33.3	0.0
Franklin	346	65.4	9.1	25.7
White	182	77.9	5.4	18.1
Black	163	51.9	13.3	34.4
Other	1	0.0	0.0	0.0
Grant	253	79.8	9.2	24.1
White	203	83.3	8.5	22.7
Black	50	66.0	12.7	30.0
Other	0	0.0	0.0	0.0
Iberia	1235	61.2	9.1	21.2
White	706	69.8	6.3	16.1
Black	485	48.2	12.8	28.9
Other	44	65.1	9.5	18.2
Iberville	431	74.4	11.7	22.0
White	186	88.0	7.5	17.2
Black Other	243	63.8 100.0	14.7 0.0	25.9 0.0
Jackson	206	59.1	7.9	19.9
White	134	67.9	7.9 5.5	15.7
Black	72	43.1	12.1	27.8
Other	0	0.0	0.0	0.0
Jefferson	6492	83.3	8.4	15.2
White	4152	89.7	6.6	10.7
Black	1949	70.6	12.8	25.9
Other	391	79.6	6.1	9.7
Jefferson Davis	497	61.1	7.8	19.9
White	370	66.2	6.4	16.8
Black	121	45.4	12.2	29.8
Other	6	60.0	8.3	16.7
Lafayette	2830	74.1	9.0	14.9
White	1902	80.1	6.1	11.0
Black	876	61.0	15.2	24.0
Other	52	71.2	7.3	5.8
Lafourche	1276	79.8	8.2	17.4
White	976	80.9	6.8	13.0
Black	262	77.0	13.7	34.0
Other	38	71.1	5.4	15.8

Births	by Parish, Race o	of Mother, and Se Louisiana, 1996	elected Characte	ristics
Parish	Total Births	Percent with Adequate Prenatal Care	Percent Low Weight Births (<5.8 lbs.) 1992-1996	% Births to Mothers Under Age 20 Years
LaSalle	190	72.9	8.1	20.5
White	160	77.2	7.5	16.3
Black	28	46.4	12.1	46.4
Other	2	100.0	0.0	0.0
Lincoln	544	49.9	9.6	15.3
White	275	68.9	6.2	7.3
Black	267	30.9	12.8	23.6
Other	2	0.0	8.8	0.0
Livingston	1187	83.9	8.1	16.3
White Black	1103 82	85.8 58.0	7.2	15.3
Other	2	100.0	18.4 0.0	29.3 0.0
Madison	231	64.4	11.8	28.6
White	65	78.5	7.0	23.1
Black	164	78.3 58.3	13.5	30.5
Other	2	100.0	0.0	50.0
Morehouse	442	50.6	10.5	25.6
White	213	67.8	6.9	20.2
Black	228	34.7	13.5	30.7
Other	1	100.0	0.0	0.0
Natchitoches	568	72.0	9.2	22.0
White	271	84.8	5.2	14.4
Black	292	60.0	12.7	29.1
Other	5	80.0	5.3	20.0
Orleans	7585	71.4	12.1	21.0
White	1368	88.1	6.1	6.0
Black	5991	67.3	13.7	25.0
Other	226		5.7	5.8
Ouachita White	2060 1143		9.5 5.9	21.8 13.2
Black	901	65.9	13.8	33.0
Other	16	87.5	9.2	6.3
Plaquemines	394	79.0	7.5	21.6
White	261	86.3	6.0	19.5
Black	117	65.8	11.6	28.2
Other	16	56.3	2.8	6.3
Pointe Coupee	356	76.5	9.4	19.7
White	190		5.2	9.5
Black	164	63.6	14.0	31.7
Other	2	100.0	0.0	0.0

Births	by Parish, Race o	of Mother, and Se Louisiana, 1996	elected Characte	ristics
Parish	Total Births	Percent with Adequate Prenatal Care	Percent Low Weight Births (<5.8 lbs.) 1992-1996	% Births to Mothers Under Age 20 Years
Rapides	1823	74.7	9.5	22.3
White	1103	83.9	6.8	16.8
Black	696	59.8	13.8	31.6
Other	24	78.3	5.5	4.2
Red River	141	58.0	12.0	26.2
White	66	82.8	8.2	18.2
Black	74 1	35.6	15.9	33.8
Other Richland	341	100.0 75.7	0.0 11.5	0.0 23.8
White	167	80.7	6.7	23.6 17.4
Black	174	70.8	16.0	29.9
Other	0	0.0	0.0	0.0
Sabine	278	69.8	7.7	22.7
White	192	75.3	5.9	21.9
Black	65	49.2	12.4	23.1
Other	21	85.0	7.8	28.6
St. Bernard	853	88.5	7.9	17.2
White	756	90.0	6.7	16.7
Black	72	74.3	18.6	26.4
Other	25	83.3	9.5	8.0
St. Charles	736	84.9	8.9	13.9
White	494	90.4	5.7	8.3
Black	235	73.4	15.6	25.5
Other	7	85.7	7.1	14.3
St. Helena	111	71.6	11.4	27.0
White Black	49 59	81.3 65.5	10.4 12.2	20.4 32.2
Other	3	33.3	20.0	
St. Helena	344	68.2	10.5	15.4
White	136	84.0	6.8	5.9
Black	208	57.9	13.1	21.6
Other	0	0.0	0.0	0.0
St. John	693	72.1	8.8	18.9
White	355	80.1	6.5	10.4
Black	332	63.9	11.3	
Other	6	50.0	12.5	16.7
St. Landry	1314	66.1	10.2	22.3
White	682	75.6	6.8	17.4
Black	626	55.8	13.7	27.6
Other	6	50.0	5.3	16.7

Births		of Mother, and Se Louisiana, 1996	elected Characte	ristics
Parish	Total Births	Percent with Adequate Prenatal Care	Percent Low Weight Births (<5.8 lbs.) 1992-1996	% Births to Mothers Under Age 20 Years
St. Martin	709	70.8	10.0	20.2
White	420	79.8	7.1	16.4
Black	273	57.4	13.8	
Other	16	62.5	16.2	0.0
St. Mary	891	79.0	8.5	23.5
White Black	543 324	85.1 68.3	6.0 12.6	18.6 31.8
Other	24	83.3	5.4	20.8
St. Tammany	2489	86.0	6.8	
White	2120	88.8	5.9	8.1
Black	336	69.3	12.4	28.9
Other	33	81.8	6.3	3.0
Tangipahoa	1560	79.8	10.9	23.8
White	916	87.2	6.9	17.2
Black	636	69.1	16.5	33.6
Other	8	87.5	11.8	
Tensas	81	60.0	11.0	30.9
White	29	79.3	4.9	20.7
Black	52	49.0	14.8	36.5
Other	0	0.0	0.0	0.0
Terrebonne	1603	76.1	8.6	20.0 16.6
White Black	1139 369	75.6 78.9	7.2 13.8	
Other	95	70.5 70.5	5.0	29.5
Union	299	63.1	10.2	23.1
White	203	72.0	7.7	17.2
Black	94	43.0	14.7	35.1
Other	2	100.0	0.0	50.0
Vermilion	657	81.0	8.6	
White	507	82.9	6.2	
Black	136	75.4	16.3	
Other	14	64.3	10.9	0.0
Vernon	952	76.9	6.9	15.8
White	733	78.1	5.9	16.8
Black Other	180 39	71.1 82.1	10.5 5.8	
W. Baton Rouge	322	78.4	8.7	18.3
White	180	89.3	5.1	14.4
Black	140	65.0	13.3	
Other	2	50.0	33.3	

#### Births by Parish, Race of Mother, and Selected Characteristics Louisiana, 1996 **Percent Low** Percent Weight Births % Births to Parish **Total Births Mothers Under** with Adequate (<5.8 lbs.) 1992-1996 Prenatal Care Age 20 Years W. Carroll 150 24.0 63.3 8.1 White 115 64.3 7.5 21.7 Black 35 60.0 10.3 31.4 Other 0 0.0 0.0 0.0 W. Feliciana 113 76.9 7.9 16.8 White 53 88.5 3.6 15.1 Black 60 66.1 12.5 18.3 Other 0.0 0.0 0.0 0 Washington 662 74.9 9.3 26.0 White 408 83.5 20.3 6.7 Black 253 60.8 13.2 35.2 Other 100.0 0.0 0.0 Webster 566 67.9 9.9 20.3 White 311 80.3 6.1 16.4 Black 253 24.9 52.4 14.6 Other 2 50.0 5.9 50.0 230 Winn 64.0 8.8 20.4 White 141 71.4 6.3 12.1 89 Black 52.3 12.9 33.7 Other 0.0 0.0 0.0

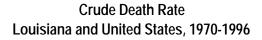
#### C. DEATHS

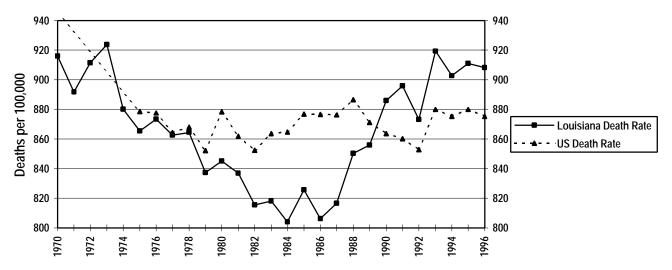
#### Overview

There were 39,511 deaths of Louisiana residents in 1996, representing a small decrease from the 39,539 deaths in 1995. Of total deaths, there were approximately equal numbers of male (51.4%) and females (48.6%). In terms of race, 1996 deaths included 27,045 White, 12,276 African-American, 64 American Indian, and 113 Other Race deaths. On 13 death certificates, race was not recorded. Of total resident deaths, 19.1%, 47.3%, and 20.6% occurred among those aged 45-64 years, 65-84 years, and 85 years and older, respectively. Age information was not recorded in 41 deaths.

### **Mortality Rate**

Crude death rates are useful for examining the overall mortality risk of an area or population group, since they utilize total population and do not account for an age distribution. In Louisiana, the crude death rate slightly decreased from 1995 to 1996, from 911.0 to 908.2 per 100,000 population. The U.S. rate was 880.0 in 1995 and 875.4 per 100,000 in 1996. While this drop maintains an overall decline in Louisiana since a peak in 1993, the crude death rate has been steadily increasing since the mid 1980s. Furthermore, in 1990, the crude death rate in Louisiana leaped beyond the United States rate and has maintained a wide margin since then.





Source: Louisiana State Center for Health Statistics
National Center for Health Statistics (preliminary U.S. 1996 data)

In the table below, rates are furnished to provide an idea of Louisiana's standing among the neighboring states. (Note: Although Louisiana's final 1996 rate is available and is reported in this document, National Center for Health Statistics preliminary data for all states has been used in the table below to permit comparison with surrounding states.) While all except Texas' rate are well above the national figure, Louisiana's crude mortality rate lies in the middle of the spectrum of the neighboring state rates.

Crude Mortality Rates,* Louisiana and Neighboring States, 1996										
Alabama 1002.6										
Arkansas	1056.9									
Louisiana	930.5									
Mississippi	984.5									
Texas	723.8									
United States	875.4									

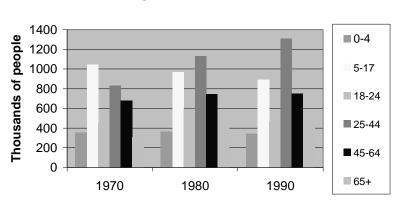
\*Rates per 100,000

Source: National Center for Health Statistics (preliminary 1996 data)

The difference between Louisiana and U.S. rates may be explained by the age distribution of the population. It is possible that Louisiana has an older population than the U.S. as a whole. The graph below demonstrates how age distributions of populations change over time, and highlights the significance of utilizing age-adjusted rates to make comparisons between populations.

The fact that the crude death rate has been increasing since the mid-1980s can be explained by the age distribution of the population given in the opposite figure. This demonstrates that the large 5-17 year old population in 1970 has gotten older over time and constitutes a large 25-44 year old population in 1990. Simply stated, the population of Louisiana in 1990 is older than the state population was in 1970.

## Louisiana Age Distribution 1970-1990



Source: Louisiana State Center for Health Statistics

Among those who died in 1996, examination of age and gender reveals that the greatest proportions were those of the 65-84 year age group and the 85 & older group. The overall proportion of males and females were similar; however, in all but the extreme age groups, males generally exceeded females.

Number of Deaths by Age Group and Gender Louisiana, 1996														
	Age Group													
Gender	Under 5	Ŭ ,												
Female	315	78	168	975	2946	9050	5653	19185						
Male	418	121	655	2207	4593	9601	2694	20289						
Total	733	199	823	3182	7539	18651	8347	39474						

\*Age not stated on 37 records

Number of Deaths by Age Group Louisiana, 1996																
									Age ii	n Year:	s					
Parish	Total	Rate*	Less than 1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	UNK
Louisiana	39511	9.1	586	147	82	117	362	461	1148	2034	2921	4618	8342	10309	8347	37
Acadia	566	9.9	11	3	2	1	6	1	8	24	46	83		138	125	1
Allen	227	9.5	2	1	1	0	1	1	4	13	23		44	59	57	0
Ascension	467	6.9	7	1	2	2	5	3	16	27	41	66	_	120	95	0
Assumption	174	7.8	7	0	0	0	2	1	3	6	18	15	31	46	45	0
Avoyelles	456	11.2	3	2	1	3	3	5	7	20	44	51	86	125	106	0
Beauregard	288	9.2	5	1	2	0	4	2	9	10	16	30	61	79	69	0
Bienville	187	11.9	5	0	1	0	2	1	4	5	6	19	29	65	50	0
Bossier	673	7.3	7	1	5	3	7	3	16	38	60	89	145	162	136	1
Caddo	2545	10.3	38	5	6	10	21	30	58	122	195	244	518	711	587	0
Calcasieu	1574	8.8	20	4	2	1	15	6	44	64	99	197	346	448	327	1
Caldwell	122	12	1	0	0	0	2	3	4	5	6	17	20	38	26	0
Cameron	69	7.6	1	0	0	0	0	1	1	6	9	9	16	18	8	0
Catahoula	133	12.3	0	0	0	0	2	0	1	1	5	24	27	39	34	0
Claiborne	189	11	0	0	0	0	3	1	2	2	12	25	35	42	67	0
Concordia	222	10.7	1	2	0	2	3	2	3	16	14	28	70	47	33	1
DeSoto	288	11.3	2	0	1	1	4	3	3	11	17	30	55	80	81	0
E. Baton Rouge	2946	7.4	68	13	1	8	38	36	106		245			738	590	1
E. Carroll	206	10.2	3	1	2	0	5	2	7	5	17	34	51	47	32	0
E. Feliciana	121	13.1	0	1	0	0	4	0	4	2	7	14	21	30	38	0
Evangeline	361	10.5	8	1	0	1	3	4	8		21	51	60	114	76	0
Franklin	289	13.1	3	2	0	0	2	3	4	12	12	25	51	102	73	0
Grant	189	10.3	3	1	0	0	3	0	6		13		42	46	43	1
Iberia	583	8.2	12	2	0	3	6	3	19	30	26		131	157	121	' 1
		_			-				_						74	
Iberville	324	10.5	6	6	0	1	3	4	17	14	23		63	73		1
Jackson	174	11.2	0	0	0	0	1	2	0		5			46	52	0
Jefferson	313	10	2	3	1	2	1	2	8	7	26	44	61	75	81	0
Jefferson Davis	3821	8.4	49	12	6	14	17	45	100		279			1061	730	1
Lafayette	1179	6.5	25	3	5	3	8	9	28	61	65			322	255	0
Lafourche	632	7.2	7	2	0	3	5	4	20	33	44	75	153	171	115	0
LaSalle	189	13.7	0	0	0	0	2	0	1	5	12	23	39	60	47	0
Lincoln	352	8.2	6	0	1	2	6	1	7	10		34		92	108	0
Livingston	557	6.8	10	2	4	3		8	16					130		
Madison	148	11	2	0	0	0	_	1	7	_				32		2
Morehouse	380	11.9	9	0	0	1	5	3	10							-
Natchitoches	415	11.1	7	1	0	0	6	3	10	13	30	49	78	102	114	2
Orleans	5426	11.3	66	26	12	11	84	140	248			559	1063	1239	1113	5
Ouachita	1369	9.3	17	7	6	6	4	18	33	57	89	136	302	363	331	0
Plaquemines	200	7.8	3	2	1	1	3	0	12	17	9	25	37	56	34	0
Pointe Coupee	242	10.5	5	0	0	0	0	0	4	11	21	31	46	73	51	0
Rapides	1227	9.6	25	2	0	4	4	9	27	58	75	155	247	361	259	1
Red River	111	11.4	1	0	0	0	0	1	1	6	10	19	23	32	18	0
Richland	256	12.5	3	1	1	1	1	2	6	10	12			81	67	0
Sabine	264	11.2	2	0	0	2	2	3	3	8	18	42	52	75	57	0
St. Bernard	641	9.5	5	1	1	2	2	3	18					166		0
St. Charles	313	6.8		3	0	0		4	10			_		65		

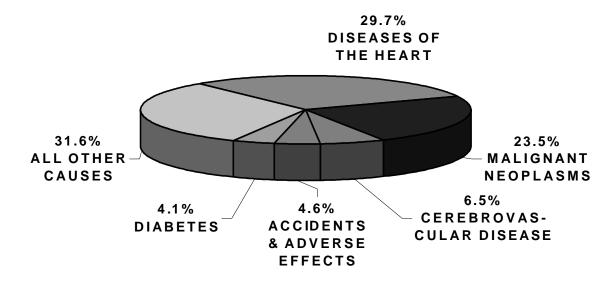
	Number of Deaths by Age Group Louisiana, 1996															
				Age in Years												
Parish	Total	Rate*	Less than 1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	UNK
St. Helena	98	10.1	1	0	0	0	0	1	4	5	9	14	24	22	18	0
St. James	171	7.9	5	2	1	0	1	6	8	10	11	19	28	47	33	0
St. John	254	6.1	7	0	1	5	1	5	10	19	21	44	57	45	39	0
St. Landry	820	10	11	6	1	2	3	11	21	31	51	97	191	217	178	0
St. Martin	352	7.6	12	0	1	2	1	2	9	12	27	39	80	93	74	0
St. Mary	495	8.6	5	3	2	1	6	5	15	29	32	71	94	132	100	0
St. Tammany	1258	7.2	18	5	2	3	8	16	30	70	100	158	269	337	241	1
Tangipahoa	945	10	12	7	3	1	7	14	24	53	72	115	206	212	219	0
Tensas	119	17.5	0	0	0	2	1	0	2	6	5	14	18	41	29	1
Terrebonne	776	7.6	17	3	3	4	9	10	27	44	70	113	171	176	129	0
Union	267	12.3	4	0	1	1	0	1	8	12	24	31	58	62	65	0
Vermilion	510	10	5	1	0	2	4	3	14	20	30	46	111	139	135	0
Vernon	335	6.3	6	1	3	0	5	8	8	17	24	47	75	87	54	0
W. Baton Rouge	157	7.7	5	0	0	0	1	0	8	12	12	17	35	46	21	0
W. Carroll	138	11.3	1	1	0	0	1	0	3	6	8	15	26	46	30	1
W. Feliciana	91	6.9	0	0	0	0	0	0	3	7	11	14	21	21	14	0
Washington	549	12.7	9	2	0	0	3	4	16	23	47	84	123	145	92	1
Webster	547	13	5	3	0	0	7	1	12	19	38	54	119	151	137	1
Winn	195	11.5	3	1	0	3	1	1	1	3	16	28	34	56	47	1

\*Rate per 1000 population Source: Louisiana State Center for Health Statistics

### **LEADING CAUSES OF DEATH**

Of the total 39,511 deaths to Louisiana residents in 1996, the leading causes of death were Diseases of the Heart, Malignant Neoplasms (cancer), Cerebrovascular Disease (stroke), Accidents & Adverse Effects, and Diabetes, in that order as displayed in the figure below. 68.4% of all deaths in Louisiana in 1996 are attributable to these five causes.

## Leading Causes of Death, Louisiana 1996



Source: Louisiana State Center for Health Statistics

The top three causes, Diseases of the Heart, Malignant Neoplasms, and Cerebrovascular Disease, together account for 59.7% of total deaths. Little variation was observed in the rates compared to 1995, with the exception that Accidents & Adverse Effects had been ranked 3<sup>rd</sup> and Cerebrovascular Disease had been ranked 4<sup>th</sup>. In fact, these top four causes have consistently been the leading causes of death in Louisiana for the past twenty years (see following tables), though the rankings may have changed. The fifth-ranked cause has varied between Diabetes, Chronic Obstructive Pulmonary Disease (COPD), and Influenza & Pneumonia. The three leading causes of death in Louisiana are identical those of the nation as a whole. However, diabetes is a more serious problem in the state (5<sup>th</sup>) than on the national level (7<sup>th</sup>) and accidents are ranked higher in Louisiana (4<sup>th</sup>) than nationally (5<sup>th</sup>). COPD nationally is ranked higher (4<sup>th</sup>) than in Louisiana (7<sup>th</sup>).

While Diseases of the Heart has been the number one cause of death in Louisiana for many years, the 1996 rate continues the dramatic downward trend over the past two decades in both Louisiana and the overall U.S. Furthermore, Cerebrovascular Diseases and Accidents rates have also steadily declined, while the rate of death due to Malignant Neoplasms has increased.

When we look beyond the top five causes of death in Louisiana in 1996, we find COPD, Pneumonia & Influenza, Homicide & Legal Intervention, HIV Infection, Nephritis, Nephrotic Syndrome, & Nephrosis rounding out the top ten causes of death in the state. On the national level, the 1996 preliminary (CDC) ten leading causes do not include Homicide & Legal Intervention and Nephritis, Nephrotic Syndrome, & Nephrosis, but do include Suicide and Chronic Liver Disease & Cirrhosis.

Ten Leading Caus	es of Death, I	Louisiana and	United States	s, 1996
CAUSE OF DEATH (ICD-9 CODES)*	LOUISIANA RANK <sup>A</sup>	LOUISIANA RATE	U.S. RANK <sup>A</sup>	U.S. RATE <sup>B</sup>
Diseases of the Heart (390-398, 402, 404-429)	1	270.0	1	276.6
Malignant Neoplasms (140-208)	2	213.8	2	205.2
Cerebrovascular Disease (430-438)	3	59.0	3	60.5
Accidents & Adverse Effects (800-949)	4	41.5	5	35.4
Diabetes (250)	5	37.2	7	23.2
COPD (490-496)	6	33.0	4	40.0
Pneumonia & Influenza (480-487)	7	24.0	6	31.1
Homicide & Legal Intervention (960-978)	8	18.2	14	7.8
HIV Infection (042-044)	9	13.8	8	12.3
Nephritis, Nephrotic syndrome, & Nephrosis (580-589)	10	13.1	11	9.2

<sup>\*</sup>International Classification of Disease coding system, 9<sup>th</sup> Revision is the method promoted by the World Health Organization (WHO) to standardize cause of death reporting

ARank according to rate per 100,000 population

BU.S. 9<sup>th</sup> ranked cause of death: Suicide (*E950-E959*) – 11.6 per 100,000

U.S. 10<sup>th</sup> ranked cause of death: Chronic Liver Disease and Cirrhosis (*571*) – 9.5 per 100,000

Source: Louisiana State Center for Health Statistics

National Center for Health Statistics (preliminary 1996 data)

Rates* for Five Leading Causes of Death Louisiana, 1975-1996											
1975		1980		1985		1990		1995		1996	
Diseases of Heart	327.4	Diseases of Heart		Diseases of Heart	-	Diseases of Heart	292.8	Diseases of Heart		Diseases of Heart	270.0
Malignant Neoplasms	162.3	Malignant Neoplasms		Malignant Neoplasms		Malignant Neoplasms	205.1	Malignant Neoplasms		Malignant Neoplasms	213.8
Cerebrovas- cular Disease		Cerebrovas- cular Disease		Cerebrovas- cular Disease		Cerebrovas- cular Disease	56.5	Cerebrovas- cular Disease		Cerebrovas- cular Disease	59.0
Accidents & Adverse Effects		Accidents & Adverse Effects		Accidents & Adverse Effects		Accidents & Adverse Effects		Accidents & Adverse Effects		Accidents & Adverse Effects	41.5
Influenza & Pneumonia		Diabetes/ COPD**	17.8	COPD	23.4	COPD	28.9	Diabetes	34.4	Diabetes	37.2

<sup>\*</sup>Rates per 100,000 population
\*\*1980 rates for Diabetes and Chronic Obstructive Pulmonary Disease (COPD) were equal

### **AGE-ADJUSTED MORTALITY RATES**

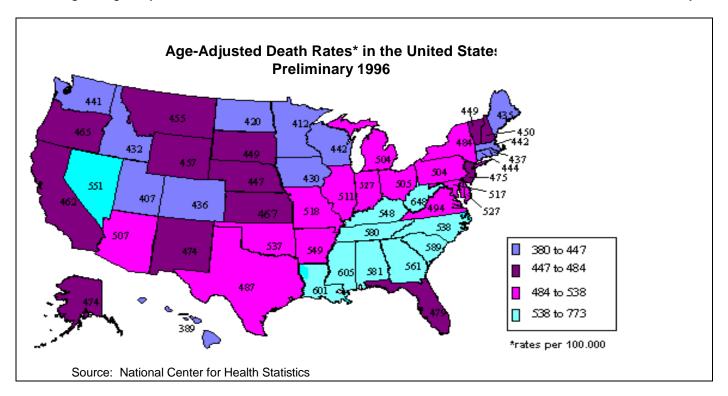
Crude (or unadjusted) death rates give us an estimate of overall mortality for a population because they measure deaths in the population as a whole. However, crude rates ignore idiosyncrasies in the composition of a population, for example the unusually large number of elderly people who live in parts of Florida. Population idiosyncrasies such as this can result in an increase in the crude rate because of the large number of people in this particular age group who are at risk of dying.

Adjusted rates (also called standardized rates) are derived from statistical procedures that adjust for differences in population composition, such as age, race, or gender, which can increase or decrease the likelihood of death in one or more of the populations being considered. Age is the most common factor for which adjustment is done, since it is the most significant characteristic related to death and disease.

Because age-adjusted death rates control for the variations in death rates among age groups, they make comparisons between age groups more meaningful. However, the age-adjusted mortality measure is not a true estimation of the death rate, as the crude mortality measure is, and it should not be used in comparisons with crude mortality rates. Differences seen in age-adjusted rates in two different populations may reflect an actual difference in death rates in the two populations, or may be due to other factors, such as race or gender, which were not taken into account when the adjustments for age were made.

#### Age-Adjusted Mortality Rates for Louisiana, 1996

The age-adjusted death rate due to all causes for Louisiana in 1996 is 595.9 per 100,000 population. In comparison to the U.S. and other states, using preliminary 1996 data from the CDC's National Center for Health Statistics, Louisiana's age-adjusted death rate (600.9 per 100,000) is the third highest in the nation, and is markedly higher that the United States as a whole (493.6 per 100,000). Louisiana belongs to a group of southern states (Mississippi, Alabama, Georgia and South Carolina) which traditionally have higher age-adjusted death rates for stroke, cancer, cardiovascular disease, and all-cause mortality.



The age-adjusted death rates for the Leading Causes of Death in Louisiana were determined by ranking the crude death rates from highest to lowest and then adjusting these rates (in the same rank order) for age.

The top five cause-specific, age-adjusted death rates for Louisiana in 1996 are:

- diseases of the heart
- cancer
- cerebrovascular disease
- accidents and adverse effects
- diabetes mellitus.

In comparing the ten most common causes of death in Louisiana with those of the U.S. as a whole, deaths from accidents/adverse effects, diabetes mellitus and homicide ranked higher in Louisiana then in the nation; deaths from COPD, pneumonia, HIV infection, suicide, and chronic liver disease/cirrhosis ranked lower. However, almost all of Louisiana's ten age-adjusted leading causes of death are higher than the U.S., COPD and pneumonia being the exceptions.

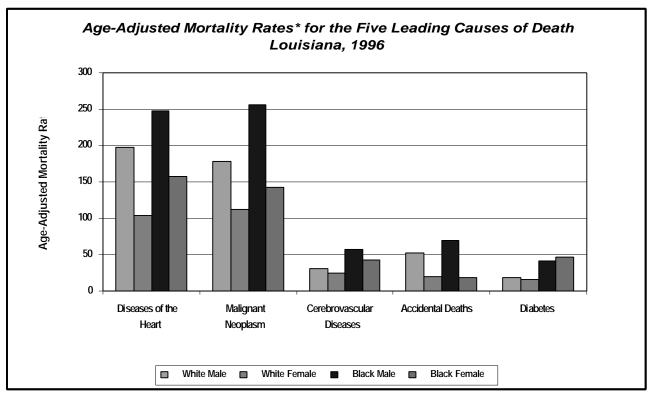
	Age-Adjusted Mortality Rates for the Top Ten Causes of Death Louisiana and United States, 1996					
	Louisiana			United States		
Rank	Cause of Death	Age-adjusted Death Rate*	Rank	Cause of Death	Age-adjusted Death Rate*	
-	All Causes	595.9	-	All Causes	493.6	
1	Diseases of the Heart	157.5	1	Diseases of the Heart	134.6	
2	Cancer	151.1	2	Cancer	129.1	
3	Cerebrovascular Disease	32.2	3	Cerebrovascular Disease	26.5	
4	Accidents and Adverse Effects	37.7	4	Chronic Obstructive Pulmonary Diseases	21.0	
5	Diabetes Mellitus	24.2	5	Accidents and Adverse Effects	30.1	
6	Chronic Obstructive Pulmonary Diseases	20.1	6	Pneumonia and influenza	12.6	
7	Pneumonia and influenza	11.5	7	Diabetes Mellitus	13.6	
8	Homicide	19.4	8	HIV Infection	11.6	
9	HIV Infection	13.8	9	Suicide	10.8	
10	Nephritis	7.3	10	Chronic Liver Disease and Cirrhosis	7.5	

\*Rate per 100,000 population

Source: Louisiana Center for Health Statistics
National Center for Health Statistics

The following chart illustrates the importance of age-adjusted mortality rates when comparing mortality in different population groups. This chart displays age-adjusted mortality rates for the five leading causes of death in Louisiana in 1996. This adjustment allows for direct comparison of the race-gender groups.

The age-adjusted rates show that males, particularly African-American males, are at higher risk than females for death from heart disease, cancer, and accidents. African-Americans are at higher risk than Whites for death from diabetes.



\*Rate per 100,000 population

## Five Year Trends in Age-Adjusted Mortality, Louisiana 1992-1996

The following table lists age-adjusted mortality rates for the four major race-gender groups over the last five years.

Age-Adjusted Death Rates* for Selected Causes of Mortality, by Race and Gender Louisiana, 1992-1996					
Cause of Death/Race/Gender	1992	1993	1994	1995	1996
Diseases of the Heart	171.5	175.9	165.5	163.2	157.5
White Male	210.2	214.1	203.3	200.7	198.1
White Female	110.6	113.4	108.6	103.5	103.8
Black Male	285.5	297.0	263.7	271.6	248.1
Black Female	179.2	187.1	171.5	172.1	157.0
Cerebrovascular Diseases	32.1	31.6	30.4	31.1	32.2
White Male	28.4	28.1	27.8	28.8	29.9
White Female	23.7	22.7	22.2	24.9	24.3
Black Male	63.5	60.9	55.8	54.0	57.6
Black Female	42.8	43.8	42.5	38.3	42.2
Malignant Neoplasm	151.0	153.7	147.4	151.2	151.1
White Male	179.0	177.8	173.5	171.4	177.6
White Female	109.1	114.2	112.5	116.7	112.2
Black Male	257.6	277.8	247.9	258.5	256.7
Black Female	147.9	138.4	131.4	142.8	142.1
Chronic Obstructive Pulmonary	18.5	20.2	20.7	20.1	20.1
Disease					
White Male	27.2	28.2	29.2	25.4	27.2
White Female	14.3	16.9	17.2	17.6	17.1
Black Male	23.7	25.3	25.8	28.9	26.7
Black Female	9.6	11.9	11.1	12.1	11.3
Human Immunodeficiency Virus	13.2	14.4	14.8	16.7	13.8
White Male	21.2	22.3	22.1	20.6	14.2
White Female	0.9	0.9	1.6	0.9	1.5
Black Male	34.5	39.7	40.4	55.2	48.6
Black Female	5.7	6.4	6.9	12.0	12.6
Accidental Deaths	37.5	39.6	38.0	37.6	37.7
White Male	52.7	55.4	55.5	54.8	53.0
White Female	19.6	20.3	20.7	21.3	20.1
Black Male	69.7	73.5	64.4	61.9	69.9
Black Female	18.6	22.4	20.8	20.8	18.6
Homicide	19.3	22.3	22.0	18.5	19.4
White Male	9.2	9.3	9.7	8.0	8.6
White Female	3.2	4.4	2.7	2.2	3.5
Black Male	86.2	99.2	101.4	81.8	82.5
Black Female	13.2	15.3	13.9	11.8	14.2
Suicide	11.8	12.0	12.3	11.8	12.0
White Male	23.9	23.0	22.3	21.8	22.9
White Female	4.4	5.5	6.4	6.1	5.9
Black Male	13.7	13.6	13.5	13.9	13.7
Black Female	1.9	2.1	2.8	2.3	1.6

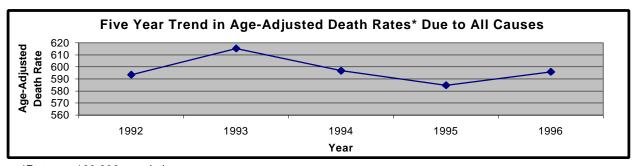
Note: Table continues on following page

Age-Adjusted Death Rates* for Selected Causes of Mortality, by Race and Gender Louisiana, 1992-1996							
Cause of Death/Race/Gender 1992 1993 1994 1995 1996							
Pneumonia and Influenza	11.8	12.2	12.0	11.4	11.5		
White Male	14.7	15.5	13.9	13.6	13.9		
White Female	8.8	9.1	9.1	8.8	9.4		
Black Male	19.2	17.2	22.1	17.3	19.0		
Black Female	10.4	11.9	10.6	11.2	8.4		
Diabetes	18.9	22.6	22.3	22.7	24.2		
White Male	13.8	16.8	16.9	16.9	18.8		
White Female	13.4	15.5	15.2	15.1	16.2		
Black Male	32.9	40.6	39.6	44.9	42.0		
Black Female	37.0	44.1	42.7	44.1	46.9		

\*Rate per 100,000 population

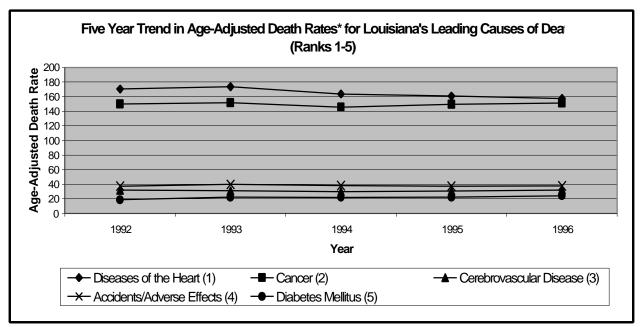
Source: Louisiana State Center for Health Statistics

The following graphs display overall age-adjusted mortality rates for Louisiana's major causes of death over the past five years. With the exception of heart disease deaths, little has changed since 1992.



\*Rate per 100,000 population

Source: Louisiana State Center for Health Statistics



\*Rate per 100,000 population

### **INFANT MORTALITY**

#### Overview

Infant mortality encompasses all deaths that occur within the first year of life and excludes fetal deaths (miscarriages and abortions). This measure can be a significant predictor of the health status of a particular area, population, or nation since it is associated with many factors, such as socioeconomic status and access to health care.

There are several measures used to describe mortality in this age group. While infant mortality measures deaths during the first year, neonatal mortality describes deaths occurring through the first 27 days. Other measures include post-neonatal mortality, which measures deaths occurring from 28 days to one year, hebdomadal mortality, which is limited to the first seven days, and perinatal mortality, which measures deaths occurring late in gestation and after birth.

Infant Mortality Rates* Louisiana, 1996						
LOUISIANA	NUMBER OF DEATHS	INFANT MORTALITY RATE <sup>A</sup>	NEONATAL MORTALITY RATE <sup>B</sup>	POST- NEONATAL MORTALITY RATE <sup>C</sup>	HEBDOMADAL MORTALITY RATE <sup>D</sup>	PERINATAL MORTALITY RATE <sup>E</sup>
TOTAL	586	9.0	5.6	3.4	4.4	13.0
WHITE	241	6.5	3.9	2.5	3.0	9.7
BLACK	337	12.7	8.0	4.8	6.3	17.7
OTHER	8	5.5	4.1	1.4	4.1	9.6

ADeaths occurring within the first year of life. Does not include fetal deaths. BDeaths occurring before the 28<sup>th</sup> day of life. Does not include fetal deaths. CDeaths occurring from 28 days to one year. Does not include fetal deaths.

Deaths occurring within the first seven days of life. Does not include fetal deaths.

EBased on National Center for Health Statistics Definition III: Number of deaths from 20 weeks gestation to 7 days after birth per 1000 live births and fetal deaths. Caution should be used when making comparisons. Other states may use differing definitions of the perinatal period.

<sup>\*</sup>All rates, except perinatal, are per 1000 live births.

### **Infant Mortality**

Infant mortality is defined as death during the first year of life. This measure excludes fetal deaths (abortions and miscarriages). In 1996 in the state of Louisiana, there were 586 deaths to children under one year of age. The *infant mortality rate* is defined as the number of deaths within the first year of life per 1000 live births. As shown in the figure below, the infant mortality rate has been dropping steadily in the past several decades, with the greatest change observed between 1970 and 1980 - a 41% reduction. The rate has declined considerably in just the past few years - from 10.5 deaths per 1000 live births in 1994 to 9.7/1000 in 1995 and 9.0/1000 in 1996.

### Infant Mortality, Louisiana and United States, 1970-1996 1996 7.6 1995 U.S. 8.0 1994 10.5 Louisiana 1990 111.0 1980 20.0 1970 24.3 0.0 5.0 10.0 15.0 20.0 25.0 Infant (Under 1 Year) Mortality Rate \*Number of Deaths per 1000 Live Births

Source: Louisiana State Center for Health Statistics National Center for Health Statistics (preliminary 1996 data)

While the trend in Louisiana reflects a decline in infant mortality rates over the past several decades, the rate is still high compared to the national infant mortality rate. The state mortality rate has been at least 20% greater than the national rate since 1992. In 1995, the U.S. rate was 7.6 deaths per 1000 live births, and in 1996, the national rate was 7.2 per 1000. By international standards, even this national rate is high. In 1993, 24 other countries' infant mortality rates were lower than the United States.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> National Center for Health Statistics. <u>Health, United States 1996-1997 and Injury Chartbook</u>. Hyattsville, Maryland, 1997.

There are geographic variations in infant mortality rates as well. As shown in the Parish-level tables which follow this section, Assumption, Bienville, and Morehouse parishes all had rates above 20.0 per 1,000.

In the table below, rates are furnished to provide an idea of Louisiana's standing among the neighboring states. (Note: Although Louisiana's final 1996 rate is available and is reported in this document, National Center for Health Statistics preliminary data for all states has been used in the table below to permit comparison with surrounding states.) While all except Texas' rate are well above the national figure, Louisiana's infant mortality rate lies in the middle of the spectrum of the neighboring state rates.

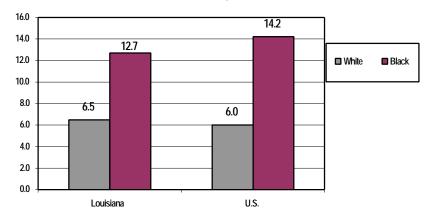
Infant Mortality Rates,* Louisiana and Neighboring States, 1996				
Alabama	10.3			
Arkansas	8.0			
Louisiana	9.2			
Mississippi	9.7			
Texas	6.1			
United States	7.2			

\*Rate per 1000 live births

Source: National Center for Health Statistics (preliminary 1996 data)

Infant mortality rates differ substantially by race. Though rates of infant death are decreasing across racial groups, children born to African-American mothers tend to have higher infant mortality rates than those born to White mothers. It is important to note that starting in 1989, the race of the mother is used for analyses instead of race of the child, so race-specific infant mortality rates prior to 1989 are not comparable. In 1996, there were 241 White, 337 African-American, and 8 Other Race deaths in Louisiana. The infant mortality rates were 6.5, 12.7, and 5.5 deaths per 1000 race-specific live births respectively. The overall infant mortality rate for African-Americans is nearly double that of Whites.

### Infant Mortality by Race Louisiana and United States, 1996



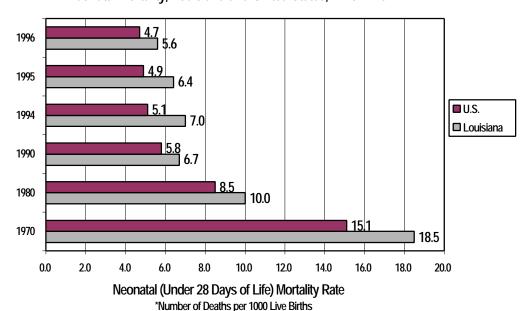
Source: Louisiana State Center for Health Statistics National Center for Health Statistics (preliminary 1996 data)

#### **Neonatal Mortality**

Neonatal mortality represents the period from birth through the first 27 days of life, and the *neonatal* mortality rate is calculated as the number of deaths during this period per 1000 live births. In 1996, 364 neonatal deaths accounted for 62% of total infant deaths. The overall neonatal mortality rate was 5.6 per 1000. This is a decrease from 1995, when the rate was 6.4 per 1000.

Displayed in the figure below is the pattern of neonatal mortality in Louisiana and the U.S. The state rate has been decreasing, though it is still higher than the U.S. rate.

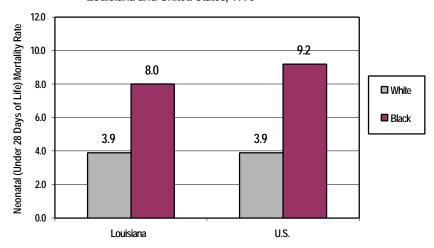
### Neonatal Mortality, Louisiana and United States, 1970-1996



Source: Louisiana State Center for Health Statistics National Center for Health Statistics (preliminary 1996 data)

> Neonatal Mortality by Race Louisiana and United States, 1996

Racial disparity is still observed: Louisiana's neonatal mortality rate for Whites was 3.9 per 1000, while the rate for African-Americans was twice as high at 8.0 per 1000. While Louisiana's overall rate is higher than the U.S. rate, the state's White rate is equivalent to the U.S. White rate. The state's African-American rate is considerably lower than the national rate.



Source: Louisiana State Center for Health Statistics
National Center for Health Statistics

	1	
Parish/Race	1996 Number of Infant Deaths	1992-1996 Infant Mortality Rate*
Louisiana	586	10.1
White	241	6.8
Black	337	15
Other	8	2.9
Acadia	11	12.9
White	6	8.9
Black	5	23.5
Other	0	-
Allen	2	7.9
White	2	6.5
Black	0	10.3
Other	0	29.4
Ascension	7	7.8
White	2	4.8
Black	2 5	15.4
Other	0	-
Assumption	7	14.7
White	6	17.2
Black	1	11.7
Other	0	-
Avoyelles	3	6.9
White	2	4.9
Black	1	10.6
Other	0	-
Beauregard	5	7.3
White	4	5.9
Black	1	15
Other	0	-
Bienville	5	9.3
White	0	5.9
Black	5	12.5
Other	0	-
Bossier	7	7.1
White	4	5.6
Black	3	10.7
Other	0	7
Caddo	38	10.9
White	9	5.6
Black	29	15.6
Other	0	-

	4000	4000 4000
Parish/Race	1996 Number of Infant Deaths	1992-1996 Infant Mortality Rate*
Calcasieu	20	8.8
White	9	6.4
Black	11	14.5
Other	0	-
Caldwell	1	14.2
White	1	9.8
Black	0	32.8
Other	0	-
Cameron	1	14.8
White	1	16
Black	0	-
Other	0	-
Catahoula	0	-
White	0	-
Black	0	-
Other	0	-
Claiborne	0	6.8
White	0	2.6
Black	0	9.5
Other	0	-
Concordia	1	11
White	0	7.8
Black	1	14.2
Other	0	-
DeSoto	2	12.3
White	1	9.5
Black	1	14.5
Other	0	-
E. Baton Rouge	68	11.2
White	20	5.8
Black	45	17.2
Other	3	7.9
E. Carroll	0	13.2
White	0	4.8
Black	0	15.7
Other	0	
E. Feliciana	3	14.5
White	3	11
Black	0	18
Other	0	-

Parish/Race	1996 Number of Infant	1992-1996 Infant Mortality
T unon/ruoc	Deaths	Rate*
Evangeline	8	9.8
White	4	5.7
Black	4	16.7
Other	0	-
Franklin	3	14.6
White	1	6.9
Black	2	23.4
Other	0	-
Grant	3	9.8
White	3	8.2
Black	0	18.1
Other	0	-
Iberia	12	10.1
White	3	6.5
Black	7	14.2
Other	2	20.3
Iberville	6	10
White	1	6.8
Black	5	12.3
Other	0	-
Jackson	0	9.9
White	0	6.3
Black	0	16.1
Other	0	-
Jefferson	49	8.4
White	29	6.5
Black	19	14
Other	1	0.6
Jefferson Davis	2	6.8
White	2	5.4
Black	0	11.5
Other	0	-
Lafayette	25	8.3
White	12	5
Black	13	15.6
Other	0	-
Lafourche	7	7.9
White	3	4.9
Black	4	19.3
Other	0	-

Parish/Race	1996 Number of Infant Deaths	1992-1996 Infant Mortality Rate*
LaSalle	0	14
White	0	16.3
Black	0	-
Other	0	-
Lincoln	6	12.9
White	0	9.3
Black	6	16.6
Other	0	-
Livingston	10	10.9
White	6	9.2
Black	4	29.5
Other	0	-
Madison	2	14.4
White	0	6.1
Black	2	17.4
Other	0	-
Morehouse	9	18.2
White	1	10.8
Black	8	24.2
Other	0	-
Natchitoches	7	11.8
White	1	6.2
Black	6	16.7
Other	0	-
Orleans	66	11.7
White	8	6.8
Black	56	13.1
Other	2	3
Ouachita	17	10.8
White	6	7.3
Black	11	15.1
Other	0	-
Plaquemines	3	6.2
White	2	5.1
Black	1	8.1
Other	0	9.3
Pointe Coupee	5	8.5
White	4	11.2
Black	1	5.8
Other	0	-

Parish/Race	1996 Number of Infant	1992-1996 Infant Mortality
Danidae	Deaths	Rate*
Rapides	25	12.3
White	11	9.3
Black	14	16.9
Other	0	7.8
Red River	1	12.2
White	0	2.7
Black	1	21.5
Other	0	-
Richland	3	16.6
White	3	16.1
Black	0	17.1
Other	0	-
Sabine	2	8
White	1	7.7
Black	1	9.7
Other	0	-
St. Bernard	5	7.3
White	4	6.7
Black	1	15.1
Other	0	-
St. Charles	3	6.2
White	1	4.4
Black	2	10.1
Other	0	-
St. Helena	1	12.3
White	0	3.8
Black	1	19.8
Other	0	-
St. James	5	12.2
White	3	12.3
Black	2	12.2
Other	0	-
St. John	7	8.7
White	2	5.3
Black	2 5	12.8
Other	0	_
St. Landry	11	11
White	4	6.2
Black	7	15.9
Other	0	-

Parish/Race         Number of Infant Deaths         Infant Mortality Rate*           St. Martin         12         10.2           White         6         8.5           Black         6         12.7           Other         0         -           St. Mary         5         10.7           White         2         6.2           Black         3         18.3           Other         0         -           St. Tammany         18         7.7           White         16         6.6           Black         2         15.3           Other         0         -           Tangipahoa         12         9.6           White         4         6.8           Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         2         20.7		4006	4002 4006
St. Martin         12         10.2           White         6         8.5           Black         6         12.7           Other         0         -           St. Mary         5         10.7           White         2         6.2           Black         3         18.3           Other         0         -           St. Tammany         18         7.7           White         16         6.6           Black         2         15.3           Other         0         -           Tangipahoa         12         9.6           White         4         6.8           Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         2         20.7           Other         0         -           Vermilion	Parish/Paga	1996	1992-1996
St. Martin         12         10.2           White         6         8.5           Black         6         12.7           Other         0         -           St. Mary         5         10.7           White         2         6.2           Black         3         18.3           Other         0         -           St. Tammany         18         7.7           White         16         6.6           Black         2         15.3           Other         0         -           Tangipahoa         12         9.6           White         4         6.8           Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         19.7           Other         0         3.4           Union         4         12.4           White         3 </th <th>Palisii/Race</th> <th></th> <th></th>	Palisii/Race		
White         6         8.5           Black         6         12.7           Other         0         -           St. Mary         5         10.7           White         2         6.2           Black         3         18.3           Other         0         -           St. Tammany         18         7.7           White         16         6.6           Black         2         15.3           Other         0         -           Tangipahoa         12         9.6           White         4         6.8           Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         -           Vermilion         4         12.4           White         3	St Martin		
Black Other         6         12.7 Other           St. Mary         5         10.7 White         2         6.2 Black         3         18.3 Other         -			-
Other         0         -           St. Mary         5         10.7           White         2         6.2           Black         3         18.3           Other         0         -           St. Tammany         18         7.7           White         16         6.6           Black         2         15.3           Other         0         -           Tangipahoa         12         9.6           White         4         6.8           Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         17.7         10.2           White         9         8.4           Black         2         20.7           Other         0         -           Vermilion         5         8.3           White         3 <td>· -</td> <td></td> <td></td>	· -		
St. Mary         5         10.7           White         2         6.2           Black         3         18.3           Other         0         -           St. Tammany         18         7.7           White         16         6.6           Black         2         15.3           Other         0         -           Tangipahoa         12         9.6           White         4         6.8           Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         -           Union         4         12.4           White         3         5.1           Black         2         20.7           Other         0         -           Vermilion         5			-
Black Other         3         18.3           Other         0         -           St. Tammany         18         7.7           White         16         6.6           Black         2         15.3           Other         0         -           Tangipahoa         12         9.6           White         4         6.8           Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         3.4           Union         4         12.4           White         2         7.6           Black         2         20.7           Other         0         -           Vermilion         5         8.3           White         3         5.1           Black         2<	St. Mary	5	10.7
Black Other         3         18.3           Other         0         -           St. Tammany         18         7.7           White         16         6.6           Black         2         15.3           Other         0         -           Tangipahoa         12         9.6           White         4         6.8           Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         3.4           Union         4         12.4           White         2         7.6           Black         2         20.7           Other         0         -           Vermilion         5         8.3           White         3         5.1           Black         2<	White	2	6.2
St. Tammany       18       7.7         White       16       6.6         Black       2       15.3         Other       0       -         Tangipahoa       12       9.6         White       4       6.8         Black       8       13.7         Other       0       -         Tensas       0       14.3         White       0       5.4         Black       0       19.7         Other       0       -         Terrebonne       17       10.2         White       9       8.4         Black       8       17.7         Other       0       3.4         Union       4       12.4         White       2       20.7         Black       2       20.7         Other       0       -         Vermillion       5       8.3         White       3       5.1         Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black	Black	3	18.3
White       16       6.6         Black       2       15.3         Other       0       -         Tangipahoa       12       9.6         White       4       6.8         Black       8       13.7         Other       0       -         Tensas       0       14.3         White       0       5.4         Black       0       19.7         Other       0       -         Terrebonne       17       10.2         White       9       8.4         Black       8       17.7         Other       0       3.4         Union       4       12.4         White       2       7.6         Black       2       20.7         Other       0       -         Vermilion       5       8.3         White       3       5.1         Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other <t< td=""><td>Other</td><td>0</td><td>-</td></t<>	Other	0	-
White       16       6.6         Black       2       15.3         Other       0       -         Tangipahoa       12       9.6         White       4       6.8         Black       8       13.7         Other       0       -         Tensas       0       14.3         White       0       5.4         Black       0       19.7         Other       0       -         Terrebonne       17       10.2         White       9       8.4         Black       8       17.7         Other       0       3.4         Union       4       12.4         White       2       7.6         Black       2       20.7         Other       0       -         Vermilion       5       8.3         White       3       5.1         Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other <t< td=""><td>St. Tammany</td><td>18</td><td>7.7</td></t<>	St. Tammany	18	7.7
Other         0         -           Tangipahoa         12         9.6           White         4         6.8           Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         3.4           Union         4         12.4           White         2         7.6           Black         2         20.7           Other         0         -           Vermillion         5         8.3           White         3         5.1           Black         2         19.2           Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0		16	6.6
Tangipahoa         12         9.6           White         4         6.8           Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         3.4           Union         4         12.4           White         2         7.6           Black         2         20.7           Other         0         -           Vermilion         5         8.3           White         3         5.1           Black         2         19.2           Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0         -           White         1	Black	2	15.3
White         4         6.8           Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         3.4           Union         4         12.4           White         2         7.6           Black         2         20.7           Other         0         -           Vermilion         5         8.3           White         3         5.1           Black         2         19.2           Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0         -           W. Baton Rouge         5         8.7           White         1	Other	0	-
Black         8         13.7           Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         3.4           Union         4         12.4           White         2         7.6           Black         2         20.7           Other         0         -           Vermilion         5         8.3           White         3         5.1           Black         2         19.2           Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0         -           W. Baton Rouge         5         8.7           White         1         4.1           Black         4	Tangipahoa	12	
Other         0         -           Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         3.4           Union         4         12.4           White         2         7.6           Black         2         20.7           Other         0         -           Vermilion         5         8.3           White         3         5.1           Black         2         19.2           Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0         -           W. Baton Rouge         5         8.7           White         1         4.1           Black         4         14.7			
Tensas         0         14.3           White         0         5.4           Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         3.4           Union         4         12.4           White         2         7.6           Black         2         20.7           Other         0         -           Vermilion         5         8.3           White         3         5.1           Black         2         19.2           Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0         -           W. Baton Rouge         5         8.7           White         1         4.1           Black         4         14.7			13.7
White       0       5.4         Black       0       19.7         Other       0       -         Terrebonne       17       10.2         White       9       8.4         Black       8       17.7         Other       0       3.4         Union       4       12.4         White       2       7.6         Black       2       20.7         Other       0       -         Vermilion       5       8.3         White       3       5.1         Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other       0       -         W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7			-
Black         0         19.7           Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         3.4           Union         4         12.4           White         2         7.6           Black         2         20.7           Other         0         -           Vermilion         5         8.3           White         3         5.1           Black         2         19.2           Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0         -           W. Baton Rouge         5         8.7           White         1         4.1           Black         4         14.7			
Other         0         -           Terrebonne         17         10.2           White         9         8.4           Black         8         17.7           Other         0         3.4           Union         4         12.4           White         2         7.6           Black         2         20.7           Other         0         -           Vermilion         5         8.3           White         3         5.1           Black         2         19.2           Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0         -           W. Baton Rouge         5         8.7           White         1         4.1           Black         4         14.7			
Terrebonne       17       10.2         White       9       8.4         Black       8       17.7         Other       0       3.4         Union       4       12.4         White       2       7.6         Black       2       20.7         Other       0       -         Vermilion       5       8.3         White       3       5.1         Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other       0       -         W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7			19.7
White       9       8.4         Black       8       17.7         Other       0       3.4         Union       4       12.4         White       2       7.6         Black       2       20.7         Other       0       -         Vermilion       5       8.3         White       3       5.1         Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other       0       -         W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7			-
Black Other       8       17.7         Other       0       3.4         Union       4       12.4         White       2       7.6         Black       2       20.7         Other       0       -         Vermilion       5       8.3         White       3       5.1         Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other       0       -         W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7			
Other         0         3.4           Union         4         12.4           White         2         7.6           Black         2         20.7           Other         0         -           Vermilion         5         8.3           White         3         5.1           Black         2         19.2           Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0         -           W. Baton Rouge         5         8.7           White         1         4.1           Black         4         14.7			
Union       4       12.4         White       2       7.6         Black       2       20.7         Other       0       -         Vermilion       5       8.3         White       3       5.1         Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other       0       -         W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7			
White       2       7.6         Black       2       20.7         Other       0       -         Vermilion       5       8.3         White       3       5.1         Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other       0       -         W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7			
Black       2       20.7         Other       0       -         Vermilion       5       8.3         White       3       5.1         Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other       0       -         W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7			
Other         0         -           Vermilion         5         8.3           White         3         5.1           Black         2         19.2           Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0         -           W. Baton Rouge         5         8.7           White         1         4.1           Black         4         14.7		2	
Vermilion         5         8.3           White         3         5.1           Black         2         19.2           Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0         -           W. Baton Rouge         5         8.7           White         1         4.1           Black         4         14.7			20.7
White       3       5.1         Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other       0       -         W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7			-
Black       2       19.2         Other       0       -         Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other       0       -         W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7			
Other         0         -           Vernon         6         10.5           White         3         8.6           Black         3         18.5           Other         0         -           W. Baton Rouge         5         8.7           White         1         4.1           Black         4         14.7		3	
Vernon       6       10.5         White       3       8.6         Black       3       18.5         Other       0       -         W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7			19.2
White       3       8.6         Black       3       18.5         Other       0       -         W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7			10.5
Other         0         -           W. Baton Rouge         5         8.7           White         1         4.1           Black         4         14.7		2	
Other         0         -           W. Baton Rouge         5         8.7           White         1         4.1           Black         4         14.7		ა ვ	
W. Baton Rouge       5       8.7         White       1       4.1         Black       4       14.7		0	10.5
White 1 4.1 Black 4 14.7			۹ 7
Black 4 14.7			
OMER I () I -I	Other	0	14.7

### ♦ 1992-1996 Five Year Average Infant Mortality Rate

Parish/Race	1996 Number of Infant Deaths	1992-1996 Infant Mortality Rate*
W.Carroll	1	6.3
White	1	8.5
Black	0	-
Other	0	-
W. Feliciana	0	13.8
White	0	6
Black	0	22.4
Other	0	-
Washington	9	14.1
White	7	10.4
Black	2	19.9
Other	0	-
Webster	5	8.2
White	1	4.5
Black	4	12.9
Other	0	-
Winn	3	12.4
White	1	11.5
Black	2	14
Other	0	-

\*Rate per 1000 live births. Very small numbers of deaths, such as those seen for 1996 infant mortality, result in rates which are likely to fluctuate from year to year. To create rates which are more stable, 1992-1996 Five Year Infant Mortality rates have been calculated.

### **INJURY DEATHS**

Injuries are a substantial and preventable public health problem and account for approximately 6% of deaths in the United States. In 1993, injuries accounted for 57% and 78% of all deaths among persons aged 1-34 and 15-24 years, respectively. Many injury epidemiology and injury control programs depend on injury mortality and morbidity data for program planning and evaluation.

The term "injury" includes a) unintentional injuries, suicides, and homicides and b) injuries from undetermined intent, legal intervention (i.e. law enforcement), and operations of war. The term does not include adverse effects of both medical care and therapeutic use of drugs.<sup>2</sup>

Number and Rate* of Injury Deaths by Cause and Intent of Injury Louisiana, 1996												
	Intent											
Cause	Unintent	tional	Suici	de	Homicide		Undetermined		Other		Total	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Cut/pierce	1	0.02	3	0.1	80	1.8	1	0.02	0	0.00	85	2.0
Drowning/ submersion	131	3.0	9	0.2	1	0.02	9	0.2	-	-	150	3.4
Fall	113	2.6	5	0.1	0	0.00	1	0.02	-	-	119	2.7
Fire/Burn	112	2.6	1	0.02	4	0.1	0	0.00	-	-	117	2.7
Firearm	37	0.9	387	8.9	614	14.1	7	0.2	2	0.05	1047	24.1
Machinery	15	0.3	0	0.00	0	0.00	0	0.00	-	-	15	0.3
Motor-vehicle, Traffic	892	20.5	3	0.1	0	0.00	0	0.00	ı	-	895	20.6
Pedal Cyclist, other	2	0.05	ı	ı	ı	1	-	-	ı	-	2	0.05
Pedestrian, other	11	0.3	-	-	-	-	-	-	-	-	11	0.3
Transport, other	49	1.1	0	0.00	-	-	0	0.00	-	-	49	1.1
Natural, environmental	19	0.4	0	0.00	1	1	0	0.00	0	0.00	19	0.4
Overexertion	0	0.00	-	ı	ı	-	-	-	ı	-	0	0.00
Poisoning	84	1.9	53	1.2	3	0.1	34	0.8	0	0.00	174	4.0
Struck by, against	25	0.6	-	ı	12	0.3	-	-	0	0.00	37	0.9
Suffocation	88	2.0	61	1.4	21	0.5	0	0.00	ı	-	170	3.9
Other specified,												
classifiable	28	0.6	1	0.02	8	0.2	0	0.00	1	0.02	38	0.9
Other specified, not elsewhere classifiable	3	0.1	5	0.1	27	0.6	1	0.02	0	0.00	36	0.8
Unspecified	139	3.2	1	0.02	18	0.4	5	0.1	0	0.00		3.7
Total	1749	40.2	529	12.2	788	18.1	58	1.3	3	0.1	3127	71.9

\*Rate per based on 1996 Louisiana Electronic Assistance Program(LEAP) census estimates
Note: "-" Indicates category not specified by International Classification of Diseases Coding System
Source: Louisiana Office of Public Health, Injury Research and Prevention Program

<sup>2</sup> Centers for Disease Control and Prevention. Recommended framework for presenting injury mortality data. MMWR (46:RR-14) 1997.

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# II. MORBIDITY

### A. Infectious Diseases

# Background

Vaccines are among the most effective and reliable of medicines for people of all ages. Every year, they prevent countless serious illnesses and thousands of possible deaths. About 100 million vaccine doses are given annually in the United States, most of them to infants and children as part of their routine immunization schedule. A single dose of some vaccines gives nearly complete protection. With others, a series of doses spread over months or years is needed for the best results.

Children in particular are beneficiaries of the protection from illness which vaccines offer. Currently, there are ten diseases from which children are routinely protected through the use of standard childhood immunizations. These diseases are: diphtheria, tetanus, pertussis (whooping cough), polio, measles, mumps, rubella (German measles), hepatitis B, Haemophilus influenzae b (bacterial meningitis), and varicella (chicken pox). Enormous reductions have been seen in each of these serious diseases since the introduction of vaccines. For example, there were 894,134 cases of measles reported in the United States in 1941, but only 508 in 1996. Louisiana had only one reported case of measles in 1996, and evidence indicates that this infection was probably acquired in another country.

Although the public is most familiar with the vaccines used for childhood immunization, there are many others which afford protection to individuals at risk of infection from other types of exposures. An example is the hepatitis A vaccine, which recently has become available to selected populations, such as travelers to areas where the disease is endemic.

In addition to being reliable and effective, vaccines are also one of the most cost-effective medical procedures available. The ten vaccine preventable diseases addressed in standard childhood immunizations are very serious illnesses and very expensive to treat. Vaccines are relatively inexpensive and very effective. Cost estimates show that each dollar spent on immunization saves \$10-\$12 in direct medical and hospitalization costs. These estimates do not include attendant costs, such as work days lost by family members, costs for outbreak control, or the burden of lives lost to these severe diseases. A prime example is measles, which leads to the hospitalization of approximately 10% of those who become ill. Even with excellent medical care, approximately 1 out of every 1,000 cases dies, usually from measles infection of the lungs and of the brain.

The diseases which are prevented by routine childhood immunizations have not disappeared. Pertussis is spread by direct contact, such as coughing, to others who are not immune. As a result of childhood immunization, Louisiana saw only 15 cases of pertussis in 1996. In countries where childhood immunization against pertussis has been halted, however, there have been large outbreaks of whooping cough. Diptheria, another dangerous infection which has been controlled through childhood immunization, has not been seen in Louisiana since 1972. However, there currently is an epidemic of diphtheria in Eastern Europe and Asia. Without immunization, re-introduction of this disease into Louisiana via an infected person from one of these regions is easily possible.

### 1996 Status

Hepatitis A is a viral disease which affects the liver. The number of hepatitis A cases reported in the Louisiana in 1996 increased by 33% from 1995 and 53% from 1994, but Louisiana's case rate has consistently remained lower than the national rate (6 versus 11.7 per 100,000). In 1996 sex-race specific rates per 100,000 were highest among African-American males (8.5), followed by White males (5.0), African-American females (4.9) and White females (3.8). Rates by age groups were highest among 20-44 year olds, who experienced over 50% of the cases reported. This trend differs from past years, when

cases were bi-modally distributed between two distinct age groups: those less than 10 years of age and adults.

Region 8 (Monroe area) had the largest number of hepatitis A cases reported by any of the nine state administrative regions in 1996. It continues to be an endemic area for the disease. In 1996 Region 8 saw an outbreak in which cases were associated with hepatitis A infected foodhandlers at a fast food establishment. Because of this foodborne outbreak, the majority of cases identified were of adult age; this may have contributed to the peak trend in the adult age groups.

For the state overall, risk factor information was available for approximately 61% of the 261 hepatitis A cases reported in 1996. Of these case reports, 5.7% attended day care, 4.7% were contacts of an attendee in a day care facility, 17.2% were contacts of a known hepatitis A case, 7% were foodhandlers and 2.8% acquired hepatitis A during international travel. Seven parishes reported case rates exceeding the state case rate per 100,000: Red River (136), Ouachita (61), Sabine (47), W. Baton Rouge (35), DeSoto (24), Pointe Coupee (17) and Tangipahoa (10).

Hepatitis B is a serious public health problem that affects people of all ages in the United States and around the world. Each year an estimated 300,000 people get infected with the hepatitis B virus in the United States. The disease is caused by a virus that attacks the liver. A person can get hepatitis B by direct contact with the blood or body fluids of an infected person. A baby can get hepatitis B from an infected mother during childbirth. Symptoms of hepatitis B include yellowing of the skin or eyes, loss of appetite, nausea, vomiting, fever, extreme tiredness or stomach pain.

The best protection from hepatitis B is to be vaccinated with the hepatitis B vaccine, which is safe and effective. Research is also being carried out on drugs that have the potential for improving treatment of chronic hepatitis.

Each year an estimated 300,000 people become infected with the hepatitis B virus in the United States. In 1996 hepatitis B case reports in Louisiana decreased by 14% from 1995, and were essentially unchanged from 1994. Sex-specific rates continued to be higher for males than females (5.8 versus 4.0 per 100,000). Race-specific rates were over five times higher for African-Americans than for Whites (8.9 versus 1.7 per 100,000). Cases by age group and sex continued to peak in adults 20-45 years of age; this continues the trend seen in previous years. Thirteen percent of the reported hepatitis B cases had risk factor information available. Of those cases, 21% were contacts of a known case of hepatitis B, 17% were employed in a medical field, 7% were associated with dialysis patients and 10% indicated a history of tattoo. Parishes reporting the highest case rates per 100,000 are: W. Feliciana (23), Tangipahoa (17), Richland (15) and Ouachita (13).

Pertussis (whooping cough) is a respiratory illness that can affect all age groups, but mostly is found in infants and young children. It is caused by a bacterium called *Bordetella pertussis*. These bacteria are present in the mouths and noses of infected people. Pertussis symptoms are the usual cold symptoms, which then develop into coughing fits with a high-pitched "whooping" sound. Pertussis can be fatal in infants.

Immunization against pertussis involves five doses of the DTP (diphtheria, tetanus and pertussis) combination vaccination, starting at age two months.

There were 15 cases of pertussis reported in Louisiana in 1996. This reflects a return to the 1994 level of disease. The majority of the cases were reported in White males under five years of age. Six cases occurred in children who were up-to-date for their age, but not old enough to have completed a primary

immunization series. Five were not of age to have started a primary immunization series. One case occurred in an adult parent of one of the cases whose vaccine history was not reported.

*Mumps* is a viral disease that causes swelling and pain of salivary glands in the face and neck. Mumps is spread by contact with infected people. This disease is contagious from one to two days before and until seven days after symptoms appear. It is most infectious when the swelling starts. The symptoms are: fever, pain in front of the ears that increases during chewing, swollen glands in the cheeks and sometimes under the jaw. It is most likely to affect children ages five to nine, but may occur at any age. It is likely to be more serious and painful in teenagers and adults.

Immunization against mumps involves two doses of MMR (measles, mumps, and rubella) vaccine, usually at ages 12 months and at four to six years.

In 1996, 24 cases of mumps were reported in Louisiana. This is twice the rate reported for 1995. The rate of illness in males was nearly two times the rate in females. Ninety-two percent of the cases occurred in persons 24 years of age and younger. The largest number of cases (9 cases) occurred in the 5-9 year old age group. Five cases were reported in St. Tammany parish residents. Two cases each were reported in residents of Union, Rapides, East Baton Rouge, Jefferson, and Orleans parishes. Three cases received two doses of MMR vaccine prior to onset of mumps. Four cases received one dose of MMR vaccine prior to onset of illness; none of the four were old enough to have received the recommended second dose. Seventeen people with mumps reported no vaccine history.

	Selected Infectious Diseases, Louisiana 1992-1996										
	1992 1993 1994 1995 1996										
Hepatitis A	234	105	171	196	261						
Hepatitis B	261	269	206	244	209						
Pertussis	18	14	15	22	15						
Mumps	35	20	39	15	24						

Source: Louisiana Office of Public Health, Immunization Program and Infectious Epidemiology

	Selected	Infectious	Diseases	by Parish,	Louisiana	1996	
PARISH		HEPATITIS		MUMPS	PERTUSSIS		TOTAL
	Α	В					
Louisiana	261	209	1	24	15	1	1127
Acadia	1	4	0	0	0	0	11
Allen	0	1	0	0	0	0	3
Ascension	2	0	0	0	2	0	9
Assumption	0	0	0	0	0	0	1
Avoyelles	0	2	0	0	0	0	3
Beauregard	1	0	0	0	0	0	1
Bienville	0	0	0	0	0	0	1
Bossier	2	11	0	0	1	0	24
Caddo	15	16	0	1	0	0	70
Calcasieu	4	11	0	0	0	0	33
Caldwell	0	1	0	0	0	0	1
Cameron	0	0	0	0	0	0	0
Catahoula	0	0	0	0	0	0	0
Claiborne	1	0	0	0	0	0	3
Concordia	0	0	0	0	0	0	3
DeSoto	6	1	0	0	0	0	7
E. Baton Rouge	13	15	0	2	1	0	108
E. Carroll	0	0	0	0	0	0	0
E. Feliciana	0	1	0	1	0	0	7
Evangeline	0	0	0	0	0	0	7
Franklin	0	0	0	0	0	0	0
Grant	0	0	0	1	0	0	1
Iberia	0	4	0	0	0	0	9
Iberville	2	1	0	0	0	0	3
Jackson	1	0	0	0	0	0	4
Jefferson	10	15	0	2	1	0	79
Jefferson Davis	0	1	0	0	0	0	2
Lafayette	3	0	0	1	2	0	56
Lafourche	0	1	0	0	2	0	13
LaSalle	1	0	0	0	0	0	1
Lincoln	1	2	0	0	0	0	16
Livingston	2	1	0	0	0	0	21
Madison	0	0	0	1	0	0	3
Morehouse	3	3	0	0	0	0	8
Natchitoches	1	1	0	0	0	0	3
Orleans	26	43	1	2	1	1	122
Ouachita	90	19	0	1	0	0	142
Plaquemines	1	0	0	0	0	0	4
Pointe Coupee	4	0	0	0	0	0	6
Rapides	1	3	0	2	2	0	22
Red River	13	1	0	0	0	0	15
Richland	0	3	0	0	0	0	3
Sabine	11	1	0	0	0	0	12
St. Bernard	2	2	0	0	0	0	13
St. Charles	3	3	0	0	0	0	4
St. Helena	0	1	0	0	0	0	2
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Selected Infectious Diseases by Parish, Louisiana 1996									
PARISH		HEPATITIS	MEASLES	MUMPS	PERTUSSIS	RUBELLA	TOTAL		
0	A	<u>B</u>					•		
St. James	0	0	0	0	0	0	2		
St. John	0	2	0	0	0	0	8		
St. Landry	2	1	0	0	0	0	12		
St. Martin	2	1	0	0	0	0	5		
St. Mary	1	0	0	0	0	0	4		
St. Tammany	2	4	0	5	2	0	57		
Tangipahoa	9	15	0	1	0	0	36		
Tensas	0	0	0	0	0	0	0		
Terrebonne	1	1	0	0	1	0	35		
Union	0	0	0	2	0	0	6		
Vermilion	0	1	0	0	0	0	21		
Vernon	1	0	0	1	0	0	5		
W. Baton Rouge	7	0	0	0	0	0	7		
W. Carroll	0	1	0	0	0	0	1		
W. Feliciana	0	3	0	0	0	0	4		
Washington	1	1	0	1	0	0	17		
Webster	3	3	0	0	0	0	10		
Winn	0	0	0	0	0	0	2		
Unknown	12	8	0	0	0	0	35		

Source: Louisiana Office of Public Health, Infectious Epidemiology Program

# B. Tuberculosis (TB)

# **Background**

Pulmonary Tuberculosis (TB) results from infection with an organism named *Mycobacterium tuberculosis*. Persons with TB may transmit the organism by coughing. If untreated, the pulmonary TB case may infect others who breathe in the organisms expelled by the infected person. Infection is not limited to the lungs; it can also occur in other regions of the body.

Due to the danger of contagion, individuals who have been exposed to TB should be identified and evaluated. A simple skin test is used to determine if the exposed person has been infected. If the skin test and evaluation reveal that the person has been infected, a course of preventive therapy may be prescribed to protect against progression from TB infection to TB disease. Preventive therapy generally consists of six-months of therapy with a single anti-TB drug called isoniazid, or INH.

Treatment of TB disease requires an initial course of four anti-tuberculosis drugs. Length of treatment for TB disease is usually six months, but may vary due to the severity of illness or the presence of other factors, such as HIV. Due to the potentially great public health impact of this infectious disease, and because of the intricacy of the therapy (i.e. length of treatment and number of medications involved), a practice called Directly Observed Therapy (DOT) is employed to assist the patient with his or her therapy and assure completion. With DOT, trained field staff or medical personnel monitor the efficacy of treatment and the patient's compliance with the treatment regimen.

### 1997 Status

Louisiana reported 406 cases of TB in 1997, for a case rate of 9.3 per 100,000 people. This represents a 3.3% decrease from the 1996 figure of 420 cases (9.6 per 100,000) and a 14.9% decrease since the 1995 report of 475 cases (10.9 per 100,000). Caution should be urged however - decreases over such a short period do not necessarily reflect a trend in tuberculosis control.

L	LOUISIANA TUBERCULOSIS CASE COUNTS, 1993-1997									
1993	1993 1994 1995 1996 1997									
367	434	475	420	406						

Source: Louisiana Office of Public Health, Tuberculosis Program

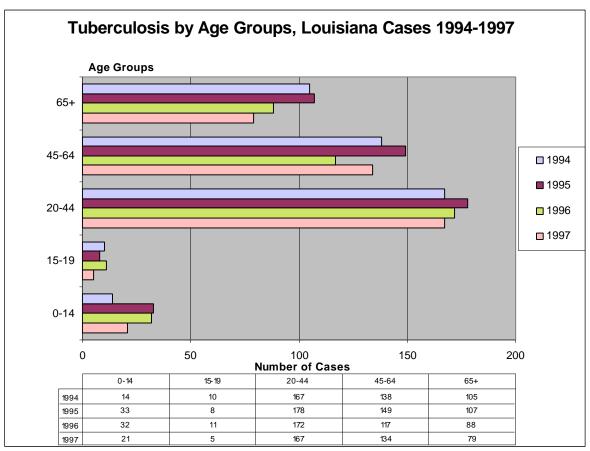
In 1996, Louisiana's state ranking for TB was the 10<sup>th</sup> highest in the nation. Louisiana's 1996 rate was similar to those in neighboring states, but was significantly higher than the national rate of 8.0 per 100,000. The national rate for 1997 is as of yet unavailable; however, the state rate of 9.3 per 100,000 is expected to exceed the U.S. rate this year as well.

TUBERCULOSIS CASES AND RATES, LOUISIANA AND NEIGHBORING STATES, 1997										
State	Number of Cases	Case Rate								
Arkansas	200	7.9								
Louisiana	406	9.3								
Mississippi	245	9.1								
Texas	1992	11.0								

Source: Louisiana Office of Public Health, Tuberculosis Program

Drug-resistant TB continues to be a problem in Louisiana. While only one case of multi-drug-resistant tuberculosis (MDR-TB) was reported in 1997, the incidence of single-drug (INH) resistance continues to exceed 4% -- the recommended threshold for initiating a four-drug anti-TB regimen for new (or suspected) cases of TB.

As shown in the following graph, decreases were observed in each age group, with the exception of the 13% increase in the 45-64 age group.



Source: Louisiana Office of Public Health, Tuberculosis Program

# LOUISIANA TUBERCULOSIS CASES AND RATES BY REGION AND PARISH, 1997

State Total = 406 Cases State Case Rate = 9.3 per 100,000

State Case Rate = 9.3 per 100,000						
Region/Parish	Cases	Rate/100,000				
Pagion 1	147	14.3				
Region 1 Jefferson	42	9.2				
Orleans	99	9.2 20.6				
Plaquemines	0	20.0				
St. Bernard	6	8.9				
Gt. Bernard		0.5				
Region 2	33	5.7				
Ascension	6	8.8				
E. Baton Rouge	21	5.3				
E. Feliciana	1	5.0				
Iberville	1	3.2				
Point Coupee	2	8.6				
W. Baton Rouge	1	4.9				
W. Feliciana	1	7.6				
Region 3	28	7.4				
Assumption	4	17.6				
Lafourche	2 1	2.3				
St. Charles		2.2				
St. James	2	9.2				
St. John	6 8	14.3 13.9				
St. Mary Terrebonne	5	4.9				
Terreporine	<u> </u>	4.5				
Region 4	35	6.7				
Acadia	5	8.7				
Evangeline	4	11.6				
Iberia	2	2.8				
Lafayette	4 2 13 2 2	7.2				
St. Landry	2	2.4				
St. Martin	2	4.3				
Vermilion	7	13.7				
Desite of E	_ a					
Region 5	24	8.8				
Allen	1	4.2				
Beauregard	0	0				
Calcasieu Cameron	17 3	9.6 33.1				
Jefferson Davis	3	9.5				
JEHEISUH DAVIS	٥	9.5				

	RCULOSIS CASES ON AND PARISH, 1	
Region/Parish	Cases	Rate/100,000
Region 6 Avoyelles Catahoula Concordia Grant LaSalle Rapides Vernon Winn	23 6 2 1 3 1 9 1	<b>7.6</b> 14.7 18.5 4.8 16.4 7.2 7.0 1.8
Region 7 Bienville Bossier Caddo Claiborne DeSoto Natchitoches Red River Sabine Webster	57 3 8 31 1 2 1 2 0 9	11.2 19.1 8.7 21.6 5.8 7.8 2.7 20.5 0 21.3
Region 8 Caldwell E. Carroll Franklin Jackson Lincoln Madison Morehouse Ouachita Richland Tensas Union W. Carroll	36 0 3 1 2 1 1 0 26 1 0	10.2 0 32.4 4.5 12.9 2.3 7.4 0 17.7 4.9 0 4.6
Region 9 Livingston St. Helena St. Tammany Tangipahoa Washington	<b>23</b> 4 0 6 5 8	<b>5.7</b> 4.9 0 3.4 5.3 18.5

Source: Louisiana Office of Public Health, Tuberculosis Program

# C. Sexually Transmitted Diseases (STDs)

# Overview

Sexually transmitted diseases are the most commonly reported diseases in the United States and affect almost 12 billion Americans in all population groups each year. By age 21, one in five young adults will have received treatment for an STD. Among the most serious complications are pelvic inflammatory disease, infertility, ectopic pregnancy, blindness, cancer associated with human papillomavirus, fetal and infant deaths, and congenital defects.<sup>1</sup>

STD RATES and NATIONAL RANKINGS, LOUISIANA 1993-1997										
Primary & Secondary Gonorrhea Chlamydia Syphilis										
Year	Rate	Rank	Rate	Rank	Rate	Rank				
1993	61	2	314	6	292	2				
1994	39	2	291	9	262	7				
1995	24	2	251	10	254	11				
1996	13	6	222	8	260	4				
1997	9	-	255	-	273	-				

Rates per 100,000 population

Sources: Louisiana Office of Public Health, STD Control Program and CDC STD Surveillance Report 1996

# **Syphilis**

Syphilis infections are caused by *Treponema pallidum*, a spirochete (bacteria). The primary stage of the disease is characterized by a painless, indurated ulcer that appears at the site(s) of exposure in about 21 days (range of 10-90 days) and lasts from 1 to 5 weeks. The secondary stage, which usually appears 1 to 5 weeks after the primary ulcer has healed, is characterized by skin rash, mucous patches, and condylomata lata, sometimes accompanied by generalized lymphadenopathy, headache, and fever. The latent stage is defined as any interval following the primary stage during which persons have no clinical signs or symptoms.

Louisiana had the second highest rate of syphilis nationwide during the 1993-1995 period; then it fell to the sixth highest rate in 1996. Between 1993 and 1997, the number of Early Syphilis (primary, secondary, and early latent syphilis) cases in Louisiana has declined dramatically, from 5,373 to 910 cases. In 1997, 56% of the state's cases occurred in females, and 93% of the cases occurred in African-Americans. Almost 89% of the syphilis cases occurred in the 15-44 year old population.

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<sup>\*\*</sup>States ranked from highest to lowest disease incidence

<sup>&</sup>lt;sup>1</sup> National Center for Health Statistics. *Healthy People 2000 Review, 1997*. Hyattsville, Maryland: Public Health Service. 1997.

	EARLY SYPHILIS (Primary, Secondary & Early Latent) RATES*, by SEX and RACE, LOUISIANA 1993-1997												
	1	W HITE	<b>E</b>	E	BLACI	K	C	THEF	₹				
Year	Male	Female	Total	Male	Female	Total	Male	Female	Total				
1993	9	12	10	361	410	387	22	17	20				
1994	7	9	8	277	301	290	15	5	10				
1995	3	6	5	181	197	189	17	7	12				
1996	2	3	3	107	109	108	2	5	4				
1997	2	2	2	61	68	65	2	2	2				

Rates per 100,000 population

Source: Louisiana Office of Public Health, STD Control Program

During the last five years, a sharp and consistent decline in early syphilis rates occurred. In the White population, a 20% decrease was noted between 1993-1994; 38% between 1994-1995; 40% between 1995-1996, and 33% between 1996-1997. In African-Americans, a 25% decrease occurred between 1993-1994; 35% between 1994-1995; 43% between 1995-1996, and 40% between 1996-1997.

PRIMARY & SECONDARY SYPHILIS RATES, LOUISIANA And NEIGHBORING STATES, 1992-1996										
	1992 1993 1994 1995 1996									
Alabama	24.5	20.8	15.7	14.4	12.4					
Arkansas	37.0	23.0	18.2	19.9	10.5					
Louisiana	63.0	61.0	39.0	24.0	13.0					
Mississippi	55.9	66.7	78.1	72.4	30.4					
Texas	Texas 18.9 14.0 10.4 8.3 4.8									
United States	13.3	10.3	7.9	6.3	4.3					

Rates per 100,000 population

Sources: Louisiana Office of Public Health, STD Control Program, and CDC STD Surveillance Report 1996

The Louisiana incidence rate for primary and secondary syphilis for 1997 is 9.0 per 100,000 people, and the national rate for 1996 is 4.3. <u>The Healthy People 2000 Review 1997</u> objectives for primary and secondary syphilis are *to reduce the incidence rate to* no more than 4 cases per 100,000 people, and no more than 30 cases per 100,000 among African-Americans.

# Gonorrhea

Infections by *Neisseria gonorrhoeae* may be symptomatic or asymptomatic, and they include genital, anorectal, and pharyngeal infections.

Louisiana had the sixth highest rate of gonorrhea nationwide in 1993, the ninth in 1994, and the tenth in 1995. In 1996, Louisiana moved back to the eighth highest. The total number of cases of gonorrhea in the state had been consistently declining, from 13,260 cases in 1993 to 9,373 cases in 1996. The number of cases in 1997 rose to 10,761, however, due to an increase in the number of laboratories with screening results reported by the state. In 1997, 48% of the cases occurred in females; 87% of cases occurred in African-Americans; one third of the cases occurred among teens 15-19 years old; and more than 93% of the cases of gonorrhea occurred among 15-44 year olds.

	GONORRHEA RATES, by SEX and RACE, LOUISIANA 1993-1997												
	'	N H I T E		E	BLACK	`	O	THER	}				
Year	Male	Female	Total	Male	Female	Total	Male	Female	Total				
1993	19	33	26	1270	637	932	95	37	67				
1994	19	33	26	1133	616	857	46	39	43				
1995	18	29	23	940	564	740	37	41	39				
1996	14	27	21	842	489	655	37	59	48				
1997	17	36	27	833	615	717	66	88	78				

\*Rates per 100,000 population

Source: Louisiana Office of Public Health, STD Control Program

The Louisiana incidence rate of gonorrhea for 1997 is 255 per 100,000 population, and the national rate for 1996 is 124 per 100,000. <u>The Healthy People 2000 Review 1997</u> objectives for gonorrhea are *to reduce the rate to*: a) an incidence of no more than 100 cases per 100,000 people and b) an incidence of no more than 650 cases per 100,000 among African-Americans.

GONORRHEA RATES, LOUISIANA and NEIGHBORING STATES, 1992-1996										
	1992	1993	1994	1995	1996					
Alabama	426	378	376	345	310					
Arkansas	312	313	281	227	204					
Louisiana	343	314	291	251	222					
Mississippi	464	397	429	353	250					
Texas	205	167	162	165	124					
United States	197	172	165	149	124					

Rates per 100,000 population

Sources: Louisiana Office of Public Health, STD Control Program and CDC STD Surveillance Report 1996

# Chlamydia

Infection caused by *Chlamydia trachomatis* is among the most prevalent STDs in the United States. Therapy for these infections is commonly based on the clinical syndrome, or as simultaneous treatment for gonorrhea.

Louisiana had the second highest rate of chlamydia nationwide in 1993, the seventh in 1994, and the eleventh in 1995. Then in 1996, Louisiana moved back to the fourth highest rate. The total number of cases of chlamydia had been declining, from 12,036 cases in 1993 to 10,727 cases in 1995, but went up to 10,991 in 1996, and up again to 11,512 in 1997. In 1997, 81% of chlamydia cases occurred in females; 80% of cases occurred in African-Americans, 45% of cases among 15-19 year olds, and more than 94% of the chlamydia cases occurred among 15-44 year olds.

	CHLAMYDIA RATES, by SEX and RACE, LOUISIANA 1993-1997										
	W H I T E B L A C K O T H E R										
Year	Male	Female	Total	Male	Female	Total	Male	Female	Total		
1993	16	131	75	363	1036	724	61	95	78		
1994	16	116	67	318	973	668	32	139	85		
1995	12	102	58	251	1011	657	37	176	106		
1996	14	27	21	842	489	655	37	59	48		
1997	17	36	27	833	615	717	66	88	78		

Rates per 100,000 population

Source: Louisiana Office of Public Health, STD Control Program

The Louisiana chlamydia rate for 1997 is 273 per 100,000 population, and the national rate for 1996 is 194.5.

CHLAMYD	CHLAMYDIA RATES, LOUISIANA and NEIGHBORING STATES, 1992-1996								
	1992	1993	1994	1995	1996				
Alabama	NR **	NR **	12.0	75.0	195.3				
Arkansas	28.6	27.5	32.1	27.4	85.0				
Louisiana	245.0	292.0	262.0	254.0	260.0				
Mississippi	NR **	NR **	NR **	33.8	161.3				
Texas	230.9	243.4	250.5	238.3	229.7				
United States	181.7	180.4	193.3	190.4	194.5				

Rates per 100,000 population

Sources: Louisiana Office of Public Health, STD Control Program, and CDC STD Surveillance Report 1996

NR = No report

	STD RATES BY PARISH, LOU	ISIANA 1997	
PARISH	EARLY SYPHILIS ( Primary, Secondary and Early Latent )	GONORRHEA	CHLAMYDIA
Acadia	5	157	168
Allen	5	85	151
Ascension	19	62	93
Assumption	26	145	273
Avoyelles	10	38	87
Beauregard	3	60	126
Bienville	25	156	357
Bossier	9	178	304
Caddo	28	579	518
Calcasieu	7	329	268
Caldwell	10	92	204
Cameron	0	54	119
Catahoula	9	63	81
Claiborne	11	109	327
Concordia	34	62	91
DeSoto	12	256	410
E. Baton Rouge	35	225	187
E. Carroll	10	216	154
E. Feliciana	21	130	239
Evangeline	6	144	117
Franklin	58	31	22
Grant	0	86	63
Iberia	13	433	387
Iberville	45	148	113
Jackson	13	236	280
Jefferson	8	139	191
Jefferson Davis	3	127	231
Lafayette	13	223	202
Lafourche	12	126	178
LaSalle	0	81	59
Lincoln	12	295	340
Livingston	7	45	77

Rates per 100,000 population

	STD RATES <sup>*</sup> BY PARISH, LOUISIANA 1997								
PARISH	EARLY SYPHILIS ( Primary, Secondary and Early Latent )	GONORRHEA	CHLAMYDIA						
Madison	32	289	505						
Morehouse	59	357	395						
Natchitoches	33	259	540						
Orleans	50	545	573						
Ouachita	20	335	294						
Plaquemines	16	51	59						
Pointe Coupee	22	124	209						
Rapides	5	223	277						
Red River	11	288	565						
Richland	29	310	373						
Sabine	0	159	261						
St. Bernard	8	77	101						
St. Charles	42	87	146						
St. Helena	10	142	334						
St. James	19	91	259						
St. John	30	203	158						
St. Landry	12	215	161						
St. Martin	18	180	282						
St. Mary	24	198	222						
St. Tammany	5	69	55						
Tangipahoa	47	352	390						
Tensas	28	113	267						
Terrebonne	31	403	313						
Union	29	169	275						
Vermilion	2	114	158						
Vernon	3	68	153						
W. Baton Rouge	41	82	160						
W. Carroll	8	74	141						
W. Feliciana	0	23	178						
Washington	19	107	137						
Webster	10	322	269						
Winn	12	68	123						
State Total	22	255	273						

Rates per 100,000 population
Source: Louisiana Office of Public Health, STD Control Program 1997

### D. HIV/AIDS

# 1996 Status

In 1996, Louisiana ranked 8<sup>th</sup> among states with the highest AIDS (Acquired Immunodeficiency Syndrome) rates. Among U.S. cities, Baton Rouge ranked 9<sup>th</sup> and New Orleans ranked 10<sup>th</sup> highest.

HIV/AIDS is a growing threat to public health and will continue to make major demands on our health and social service systems for many decades. The lifetime medical cost of caring for a person with AIDS is over \$100,000, most of which is paid by the government. Each year new infections obligate Louisiana to \$150 million in future medical costs.

New therapy with protease inhibitors has been shown to be effective in the treatment of HIV (Human Immunodeficiency Virus) infection. Appropriate treatment with the drug AZT for HIV infected pregnant women can greatly reduce perinatal transmission.

In keeping with national trends, Louisiana has seen an increase in HIV/AIDS cases in rural communities, minorities, adolescents and women, and intravenous drug users. The majority of cases continues to be in men who have sex with men.

The gap between the case rate of African-American individuals and White individuals continues to increase. Sixty-four percent of the total AIDS cases in 1996 occurred in the African-American population. African-Americans accounted for approximately 72% of the HIV cases identified in 1996.

AIDS has been steadily on the rise in the heterosexual population - AIDS cases due to heterosexual contact increased from less than 5% in 1990 to 13% in 1996. The number of pediatric AIDS cases (children diagnosed when younger than 13 years of age) has also increased as a result of the increasing number of women infected with HIV.

					Year of D	iagnosi	S			
Risk Behavior	1993 1994		1995		1996		Cumulative Total			
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Men who have sex with men (MSM)	702	59	616	55	516	49	514	44	6105	61
Injection Drug User (non-MSM)	228	19	214	19	226	21	263	23	1623	16
Heterosexual Contact	110	9	139	12	154	15	150	13	903	9
Transfusion/Transplant/ Hemophiliac	33	3	21	2	26	2	15	1	299	3
Unknown/Still under investigation	121	10	135	12	138	13	214	19	1145	11
Total	1194	100	1125	100	1060	100	1156	100	10075	100

Source: Louisiana Office of Public Health, HIV/AIDS Program

А								ES, 1993-1995	
	19	993	19	94	19	995	С	umulative Tot	als
State	Cases	Rate/ 100,000	Cases	Rate/ 100,000	Cases	Rate/ 100,000	Adults	Children less than 13	Total
Alabama	582	13.8	642	15.1	637	15.0	4,203	63	4,266
Arkansas	285	11.6	277	11.2	277	11.1	2,128	30	2,158
Louisiana	1,230	28.5	1,087	25.0	1,079	24.9	9,016	110	9,126
Mississippi	429	16.1	442	16.4	440	16.3	2,820	41	2,861
Texas	5,847	31.8	4,477	23.9	4,456	23.7	39,572	299	39,871
Nation	79,897	30.2	74,180	27.8	73,767	27.6	573,800	7,629	581,429

Source: Louisiana Office of Public Health, HIV/AIDS Program

# E. Cancer

# 1990-1994 Status

According to the American Cancer Society, one in every five deaths in the United States is attributable to cancer. More people are surviving cancer now than ever before, but this trend is not true for all groups. Survival rates can vary according to race.

Due to the possibility of natural fluctuations in cancer incidence during the course of a year, disease counts and rates have been combined to encompass a five year period. This allows a more reliable examination of the data for identification of cancers which are of most concern in our state.

FIVE MOST COMMON CANCERS IN LOUISIANA, 1990-1994									
Туре	Number of Cases	Rate per 100,000							
All Cancers	88,503	389.2							
Lung	16,175	73.0							
Prostate	13,512	58.2							
Breast	11,915	53.0							
Colon & Rectum	10,403	45.0							
Bladder	3,377	14.6							

Source: Louisiana Tumor Registry

The risk for many cancers can be significantly reduced by practicing preventive measures. The National Cancer Institute estimates that tobacco accounts for 30% of cancers, and dietary factors account for another 35%. For example, most of the lung cancers can be prevented by not smoking, and diets low in fat and high in fiber may help prevent colon, rectal, breast, prostate and other cancers.

Both preventive measures and early detection are important to cancer death rates. Mammography, clinical breast examination, Pap test, fecal occult blood tests and proctosigmoidoscopy (colon exam with lighted scope) make it possible to detect and treat cancers in their early stages and prevent spreading. However, despite modern technology and knowledge, a significant portion of the population at risk for various cancers fails to participate in screening procedures.<sup>2</sup>

Cancer is not just one, but many diseases, and is associated with a variety of risk factors. Since 1950, overall cancer mortality rates have changed little, but there have been significant changes in mortality for some age groups and cancers. Several prevalent forms of cancer, such as breast and prostate, can be either prevented or diagnosed early enough to prevent the spread to other organs.

<sup>&</sup>lt;sup>2</sup> <u>Healthy People 2000: National Health Promotion and Disease Prevention Objectives</u>. United States Department of Health and Human Services. Washington: GPO, 1990.

FIVE MO	FIVE MOST COMMON CANCERS IN LOUISIANA MALES, 1990-1994									
Whites	;	Blacks	<b>;</b>	Total <sup>3</sup>	*					
Туре	Rate**	Туре	Rate	Туре	Number					
All Cancers	487.4	All Cancers	542.1	All Cancers	47,940					
Prostate	133.4	Prostate	166.6	Prostate	13,512					
Lung	105.8	Lung	133.2	Lung	10,576					
Colon & Rectum	53.5	Colon & Rectum	45.3	Colon & Rectum	5,067					
Bladder	30.3	Stomach	19.5	Bladder	2,478					
Non-Hodgkin's		Oral Cavity &		Oral Cavity &						
Lymphoma	17.8	Pharynx	18.1	Pharynx	1,615					

<sup>\*</sup> All races combined

Source: Louisiana Tumor Registry

FIVE MOST COMMON CANCERS IN LOUISIANA FEMALES, 1990-1994									
Whites	;	Blacks	;	Total <sup>3</sup>	*				
Туре	Rate**	Туре	Rate	Туре	Number				
All Cancers	316.4	All Cancers	308.6	All Cancers	40,563				
Breast	97.0	Breast	86.4	Breast	11,806				
Lung	45.9	Lung	39.9	Lung	5,599				
Colon & Rectum	38.4	Colon & Rectum	40.5	Colon & Rectum	5,336				
Corpus Uteri	12.8	Cervix Uteri	16.8	Corpus Uteri	1,636				
Non-Hodgkin's Lymphoma	12.2	Corpus Uteri	13.9	Non-Hodgkin's Lymphoma	1,443				

<sup>\*</sup> All races combined

# Background\*

Breast Cancer is the most frequently occurring non-skin cancer among women in the United States. It is second only to lung cancer in cancer-related deaths. Nationwide, the death rate from breast cancer has decreased 6.3% between 1991 and 1995. Certain factors, such as family history and exposure to hormones, reproduction issues, and alcohol use can influence the risk for breast cancer. A debate concerning the association between high-fat diets and increased breast cancer risk has not been resolved. In the past two years, it has been discovered that alterations in two genes can account for up to 90% of inherited breast cancer, which constitutes 5-10% of all breast cancers. Early detection improves the chances of survival, and the National Cancer Institute recommended in 1997 that women in their forties or older get screening mammograms on a regular basis, every 1 to 2 years. Women who are at increased risk for breast cancer should seek medical advice about when to begin having mammograms and how often to be screened.

<sup>\*\*</sup> Average annual age-adjusted (1970 US) incidence rates per 100,000 population

<sup>\*\*</sup> Average annual age-adjusted (1970 US) incidence rates per 100,000 population Source: Louisiana Tumor Registry

<sup>\*</sup>From National Cancer Institute (NCI) resources and publications. Statistics quoted pertain to the United States.

Cervical Cancer (Cervix Uteri) afflicts 15,000 women each year. Increased use of the Pap test has contributed to a 50 percent drop in cervical cancer deaths since 1969. Women who are or have been sexually active, or have reached age 18, should have Pap tests and physical exams regularly.

Colorectal Cancer is the second leading cause of cancer death, third among men and third in women. Studies have shown that lifestyle factors may cause colon and rectum cancers. A diet high in fruits, vegetables and fiber and low in fat appears to reduce the risk of colorectal cancer. Exercise may also lower risk for this cancer. Although there is no general agreement that screening for colon cancer definitely reduces mortality, annual fecal occult blood tests have proved useful in identifying people who should have further tests to rule out colon cancer and other diseases, especially for those over 50. The potential benefit of regular sigmoidoscopies is currently being investigated by NCI.

Kidney cancer accounts for approximately 2% of all new cancers each year in the U.S. Renal cell cancer and renal pelvis cancer account for 70% and 15% respectively, with the remainder being primarily composed of cancer of the ureter (8%) and urethra (4%). While abuse of analgesics has been causally linked to increased risk, and beverages such as coffee, tea, and alcoholic drinks have not been found to be important risk factors, a consistent risk factor is obesity. Perhaps the best known factor is cigarette smoking. Given the present knowledge about cancers of the kidney, prevention is best achieved by cessation of cigarette smoking. About one-third of renal cell cancers and more than one-half of renal pelvis and ureter cancers could be avoided by eliminating the use of tobacco.

Leukemias together account for 2.5% of the total annual cancer incidence in the U.S. and about onethird of cancers in children. Five main types (and an increasing number of subtypes) have been identified. Rates for all types of leukemia are higher among males than among females; for most leukemias rates are higher among Caucasians than African-Americans.

Lung cancer is the largest single cause of cancer mortality in the United States. It is difficult to detect and hard to treat, and responsible for approximately 30% of all cancer deaths. Smoking is responsible for 87% of lung cancers. The risk of dying of lung cancer is 22 times higher for male smokers and 12 times higher for female smokers than for people who have never smoked. Unfortunately, smoking rates have begun to rise in children for the last several years and in adults more recently.

Melanoma of the skin incidence has increased dramatically over the last several decades. It represents only about 5% of all skin cancers in the U.S., but it is responsible for about 75% of all skin cancer deaths. Survival rates have been increasing because of earlier diagnoses, but the total mortality rate continues to increase because of the increase in incidence.

Non-Hodgkin's Lymphoma cases have been increasing steadily inexplicably over the past several decades. A continued, or perhaps larger, increase is anticipated because of AIDS-related cases. The cofactors that predispose AIDS cases to lymphoma need elucidation, and research is needed into other possible causes, such as hair-coloring products, pesticides, nitrates, solvents, other industrial chemicals, and viruses other than HIV.

*Oral Cavity & Pharynx* accounts for approximately 4% of all malignancies. In Americans, oral cancer is 2-3 times more common among males than females. Tobacco and alcohol account for approximately three-fourths of all oral cancers in the U.S. Epidemiologic evidence indicates that smoking and drinking are independent risk factors that produce a synergistic effect when combined. Use of snuff is a primary cause of cancers of the gum and cheek. Although not as prevalent, habitual use of pipes, cigars, and smokeless tobacco are associated with relative risks as great as that for cigarette smoking.

Ovarian cancer strikes more than 22,000 women every year. About 1 in every 70 women in the United States will develop ovarian cancer during her lifetime. Currently, the five-year survival rate is approximately 42%. The NCI is currently conducting a study to determine whether screening can detect the cancer early enough to reduce mortality.

Pancreatic cancer is a 'silent' disease that is asymptomatic until well advanced. Survival is poor; only about 3% of patients are alive five years after diagnosis. It ranks 11<sup>th</sup> in incidence of all cancers in the U.S., but is fifth in cancer mortality. Little is known about the etiology, and the only established risk factor is cigarette smoking.

*Prostate cancer* is the most frequently diagnosed non-skin cancer in men, but is a distant second to lung cancer as a cause of death. There is increasing evidence that diet plays an important role in prostate cancer development. Hormones are also being investigated, as well as occupational and other lifestyle factors. The NCI is currently conducting a study to determine whether regular screening with a digital rectal exam and a blood test for prostate-specific antigen (PSA) is beneficial.

*Uterine cancer (Corpus Uteri)* is the fourth most common cancer in U.S. women and accounts for approximately 9% of cases. However, a limited number of deaths comes from this disease, as reflected in a high five-year survival rate of 83%.

*Urinary Bladder* cancer is the fourth most common cancer in the United States, where it is chiefly a disease of White men over 65. The most important known risk factor is cigarette smoking; smokers demonstrate a 2-3 fold increased risk over non-smokers. Workers who are exposed to benzidine and 2-naphthylamine are believed to be at an elevated risk for bladder cancer due to the potent carcinogenicity of these two chemicals. Artificial sweeteners do not appear to increase risk, and coffee drinking appears to have little or no effect.

TOP	FIVE CANCERS AND BY RE	_	ER OF CASES DIAG ND PARISH, 1990-		IN LOUISIANA	
Region/Parish	Total		Males		Females	
LOUISIANA	All Cancers	88503	All Cancers	47940	All Cancers	40563
	Lung	16175	Prostate	13512	Breast	11806
	Prostate	13512	Lung	10576	Lung	5599
	Breast	11915	Colon & Rectum	5067	Colon & Rectum	5336
	Colon & Rectum	10403	Bladder	2478	Corpus Uteri	1636
	Bladder	3377	Oral Cavity & Pharynx	1615	Non-Hodgkin's Lymphoma	1443
Region 1	All Cancers	23234	All Cancers	12282	All Cancers	10952
	Lung	4173	Prostate	3282	Breast	3274
	Breast	3306	Lung	2610	Lung	1563
	Prostate	3282	Colon & Rectum	1314	Colon & Rectum	1488
	Colon & Rectum	2802	Bladder	715	Corpus Uteri	396
	Bladder	983	Oral Cavity & Pharynx	436	Ovary	375
Jefferson	All Cancers	9538	All Cancers	5063	All Cancers	4475
	Lung		Prostate		Breast	1369
	Prostate		Lung		Lung	668
	Breast		Colon & Rectum		Colon & Rectum	573
	Colon & Rectum	1110	Bladder	334	Non-Hodgkin's Lymphoma	170
	Bladder	435	Non-Hodgkin's Lymphoma	179	Ovary	167
Orleans	All Cancers	11667	All Cancers	6115	All Cancers	5552
	Lung	2043	Prostate	1651	Breast	1652
	Breast	1669	Lung	1305	Colon & Rectum	794
	Prostate	1651	Colon & Rectum	652	Lung	738
	Colon & Rectum	1446	Bladder	284	Corpus Uteri	215
	Bladder	429	Oral Cavity & Pharynx		Cervix Uteri	210
Plaquemines	All Cancers	435	All Cancers	252	All Cancers	183
	Lung	85	Prostate	62	Breast	51
	Prostate	62	Lung	52	Lung	33
	Colon & Rectum	53	Colon & Rectum	30	Colon & Rectum	23
	Breast	52	Oral Cavity & Pharynx/Bladder		Stomach/ Pancreas	8 *
	Stomach/ Pancreas/Bladder	15 *	Non-Hodgkin's Lymphoma	9	Cervix Uteri/ Corpus Uteri	5 *

<sup>\*</sup>Number of cases is the same at each site

ТОР І	FIVE CANCERS AND BY RE		R OF CASES DIAG ND PARISH, 1990-		IN LOUISIANA		
Region/Parish	Total		Males		Females		
St. Bernard	All Cancers	1594	All Cancers	852	All Cancers	742	
	Lung		Lung	203	Breast	202	
	Breast		Prostate		Lung	124	
	Colon & Rectum		Colon & Rectum		Colon & Rectum	98	
	Prostate	173	Bladder		Non-Hodgkin's Lymphoma	30	
	Bladder	104	Kidney & Renal Pelvis	34	Ovary/ Thyroid	24 *	
Region 2	All Cancers	10412	All Cancers		All Cancers	4660	
	Prostate		Prostate	1918	Breast	1434	
	Lung	1647	Lung	1049	Colon & Rectum	619	
	Breast	1449	Colon & Rectum	592	Lung	598	
	Colon & Rectum		Bladder	302	Corpus Uteri	192	
	Bladder	394	Non-Hodgkin's Lymphoma	207	Ovary	172	
Ascension	All Cancers	1063	All Cancers	632	All Cancers	431	
	Prostate	190	Prostate	190	Breast	138	
	Lung	173	Lung	119	Colon & Rectum	59	
	Breast	141	Colon & Rectum	64	Lung	54	
	Colon & Rectum		Bladder		Ovary	19	
	Bladder	52	Leukemias	22	Corpus Uteri	16	
E. Baton Rouge	All Cancers	7147	All Cancers	3872	All Cancers	3275	
	Prostate	1338	Prostate	1338	Breast	1012	
	Lung	1131	Lung		Colon & Rectum/ Lung	441*	
	Breast		Colon & Rectum		Corpus Uteri	129	
	Colon & Rectum		Bladder		Ovary	120	
	Bladder	254	Non-Hodgkin's Lymphoma		Non-Hodgkin's Lymphoma	113	
E. Feliciana	All Cancers	413	All Cancers	251	All Cancers	162	
	Prostate	75	Prostate	75	Breast	63	
	Lung	74	Lung	62	Colon & Rectum	13	
	Breast	63	Colon & Rectum	31	Lung	12	
	Colon & Rectum	44	Bladder		Corpus Uteri/ Bladder	8 *	
	Bladder	20	Non-Hodgkin's Lymphoma		Pancreas	6	

<sup>\*</sup>Number of cases is the same at each site

Region/Parish	Total		Males		Females		
Iberville	All Cancers	697	All Cancers	373	All Cancers	324	
	Prostate	121	Prostate	121	Breast	98	
	Breast	101	Lung	51	Lung	40	
	Lung	91	Colon & Rectum		Colon & Rectum	38	
	Colon & Rectum	73	Non-Hodgkin's	19	Cervix Uteri	2	
	Bladder/ Non-Hodgkin's Lymphoma		Lymphoma Bladder	18	Pancreas	1:	
Point Coupee	All Cancers	492	All Cancers	268	All Cancers	224	
Tomic Godpoo	Prostate		Prostate		Breast	6	
	Lung		Lung		Colon & Rectum	3	
	Breast		Colon & Rectum		Lung	16	
	Colon & Rectum		Bladder		Corpus Uteri	1	
	Leukemias		Leukemias		Non-Hodgkin's	1:	
				-	Lymphoma		
W. Baton Rouge	All Cancers	394	All Cancers	223	All Cancers	17	
J	Prostate	72	Prostate		Breast	4	
	Lung	68	Lung	46	Colon & Rectum	2	
	Colon & Rectum		Colon & Rectum		Lung	2:	
	Breast	40	Bladder		Pancreas	1	
	Pancreas	21	Non-Hodgkin's Lymphoma		Corpus Uteri/ Non-Hodgkin's Lymphoma	9	
W. Feliciana	All Cancers	206	All Cancers	133	All Cancers	7:	
	Lung	41	Prostate	39	Breast	18	
	Prostate	39	Lung	28	Lung	1:	
	Colon & Rectum	22	Colon & Rectum	14	Colon & Rectum		
	Breast	18	Oral Cavity & Pharynx/Pancreas	6 *	Ovary	;	
	Pancreas	8	Bladder/ Non-Hodgkin's Lymphoma	5 *	Kidney & Renal Pelvis		
Region 3	All Cancers	6301	All Cancers	3483	All Cancers	2818	
	Lung	1181	Prostate	877	Breast	83	
	Prostate		Lung		Lung	36	
	Breast	844	Colon & Rectum	391	Colon & Rectum	34	
	Colon & Rectum	739	Bladder	187	Corpus Uteri	11	
	Bladder	259	Non-Hodgkin's Lymphoma	126	Ovary	100	

<sup>\*</sup>Number of cases is the same at each site

#### TOP FIVE CANCERS AND NUMBER OF CASES DIAGNOSED IN LOUISIANA BY REGION AND PARISH, 1990-1994 Total Region/Parish Males Females All Cancers 423 All Cancers 247 All Cancers 176 Assumption Lung 97 Prostate 67 Breast 56 Prostate 67 Lung 66 Lung 31 25 Colon & Rectum 56 Colon & Rectum 19 Breast Colon & Rectum 44 Bladder 14 Cervix Uteri 8 10 Pancreas/Brain Bladder 18 Pancreas 7 \* 767 All Cancers Lafourche All Cancers 1432 All Cancers 665 195 Breast Lung 288 Prostate 185 Prostate 195 Lung 193 Lung 95 187 \* Colon & Rectum 101 Colon & Rectum Breast/ 86 Colon & Rectum 63 Bladder 44 Corpus Uteri 32 Bladder Non-Hodgkin's 56 Non-Hodgkin's 28 Ovary 30 Lymphoma Lymphoma St. Charles All Cancers 732 All Cancers 389 All Cancers 343 119 Prostate 108 Breast Lung 113 Breast 114 Lung 83 Lung 36 108 Colon & Rectum 46 Colon & Rectum Prostate 34 Colon & Rectum 80 Kidney & Renal 15 Kidney & Renal 13 Pelvis Pelvis Kidney & Renal 28 Oral Cavity & 14 \* Bladder 12 Pelvis Pharynx/ Non-Hodgkin's Lymphoma 436 All Cancers 238 All Cancers St. James All Cancers 198 74 Prostate 63 Breast Lung 62 Prostate 63 Lung 53 Colon & Rectum 24 62 Colon & Rectum Breast 31 Lung 21 Colon & Rectum 55 Bladder 19 Corpus Uteri 11 Bladder 23 Non-Hodgkin's 12 Kidney & Renal 10 Lymphoma Pelvis St. John All Cancers 595 All Cancers 320 All Cancers 275 100 Prostate 91 Breast 83 Lung 68 Colon & Rectum Prostate 91 Lung 39 84 Colon & Rectum 32 Luna Breast 32 Colon & Rectum 71 Non-Hodgkin's 15 Corpus Uteri 10 Lymphoma Non-Hodgkin's 23 Oral Cavity & 14 Cervix Uteri/ 9 \* Pharynx Lymphoma Ovary

<sup>\*</sup>Number of cases is the same at each site

TOP	FIVE CANCERS AND BY RE		ER OF CASES DIAG ND PARISH, 1990-1		IN LOUISIANA	
Region/Parish	Total		Males		Females	
St. Mary	All Cancers	1096	All Cancers	638	All Cancers	458
,	Lung	203	Prostate	170	Breast	112
	Prostate	170	Lung	141	Lung	62
	Breast	113	Colon & Rectum	52	Colon & Rectum	58
	Colon & Rectum	110	Bladder	33	Cervix Uteri	20
	Bladder	46	Leukemias	27	Corpus Uteri	18
Terrebonne	All Cancers	1587	All Cancers	884	All Cancers	703
	Lung	300	Lung	216	Breast	226
	Breast	228	Prostate	183	Colon & Rectum	88
	Prostate	183	Colon & Rectum	104	Lung	84
	Colon & Rectum	192	Bladder	52	Corpus Uteri	32
	Bladder	64	Non-Hodgkin's Lymphoma	40	Ovary	31
Region 4	All Cancers	10379	All Cancers	5455	All Cancers	4924
	Lung	2002	Lung	1335	Breast	1385
	Breast		Prostate	1294	Lung	667
	Prostate	1294	Colon & Rectum		Colon & Rectum	627
	Colon & Rectum	1189	Bladder	275	Pancreas	201
	Non-Hodgkin's Lymphoma	404	Oral Cavity & Pharynx	215	Non-Hodgkin's Lymphoma	200
Acadia	All Cancers	1272	All Cancers	656	All Cancers	616
	Lung	252	Lung	171	Breast	171
	Breast		Prostate	143	Colon & Rectum	97
	Colon & Rectum	164	Colon & Rectum		Lung	81
	Prostate	143	Bladder		Pancreas	24
	Bladder	45	Oral Cavity & Pharynx		Corpus Uteri/ Kidney & Renal Pelvis	22 *
Evangeline	All Cancers	760	All Cancers	410	All Cancers	350
_	Lung		Lung	118	Breast	79
	Colon & Rectum		Prostate	77	Colon & Rectum/ Lung	46 *
	Breast	79	Colon & Rectum	46	Pancreas/ Leukemias	15 *
	Prostate	77	Non-Hodgkin's Lymphoma	21	Non-Hodgkin's Lymphoma	14
	Non-Hodgkin's Lymphoma	35	Óral Cavity & Pharynx	20	Červix Uteri	13

<sup>\*</sup>Number of cases is the same at each site

#### TOP FIVE CANCERS AND NUMBER OF CASES DIAGNOSED IN LOUISIANA BY REGION AND PARISH, 1990-1994 Region/Parish Total Males Females All Cancers 1444 All Cancers 766 All Cancers 678 Iberia Lung 298 Lung 181 Breast 191 191 Prostate Breast 166 Lung 117 93 Colon & Rectum Colon & Rectum 171 Colon & Rectum 78 Prostate 166 Bladder 41 Cervix Uteri/ 26 3 Corpus Uteri Bladder 56 Pancreas 29 Pancreas 25 1570 All Cancers 3073 All Cancers Lafayette All Cancers 1503 581 Lung Lung 383 Breast 479 487 Prostate 371 Lung 198 **Breast** 153 Colon & Rectum Prostate 371 Colon & Rectum 162 85 Pancreas Colon & Rectum 315 Bladder 65 Non-Hodgkin's 121 Non-Hodgkin's 66 Non-Hodgkin's 55 Lymphoma Lymphoma Lymphoma All Cancers 1805 All Cancers 964 All Cancers 841 St. Landry 335 Prostate 256 Breast Lung 213 227 Colon & Rectum Prostate 256 Lung 119 Colon & Rectum 221 Colon & Rectum 108 102 Lung 214 Bladder 51 Non-Hodgkin's Breast 41 Lymphoma Non-Hodakin's 72 Oral Cavity & 40 Cervix Uteri/ 28 \* Lymphoma Pharynx Ovary 851 All Cancers 448 All Cancers St. Martin All Cancers 403 156 Prostate 112 Breast 113 Lung Breast 113 Lung 106 Lung 50 112 Colon & Rectum 38 Colon & Rectum Prostate 47 Colon & Rectum 85 Bladder 21 Pancreas/ 19 3 Cervix Uteri Pancreas/ 32 \* Kidney & Renal 18 Non-Hodgkin's 18 Non-Hodgkin's Pelvis Lymphoma Lymphoma All Cancers 1174 All Cancers 641 All Cancers Vermilion 533 216 Prostate 169 Breast Lung 139 169 Lung 149 Colon & Rectum Prostate 78 141 Colon & Rectum Colon & Rectum 63 Lung 67 Non-Hodgkin's Breast 139 Oral cavity & 31 Pharynx/Bladder/ Lymphoma Kidney & Renal Pelvis 54 Non-Hodgkin's 23 Cervix Uteri Non-Hodgkin's 24 Lymphoma Lymphoma

<sup>\*</sup>Number of cases is the same at each site

TOP	FIVE CANCERS AND BY RE		ER OF CASES DIAG ND PARISH, 1990-		IN LOUISIANA	
Region/Parish	Total		Males		Females	
Region 5	All Cancers	5583	All Cancers	2977	All Cancers	2606
	Lung	1100	Prostate		Breast	733
	Prostate		Lung		Lung	424
	Breast		Colon & Rectum		Colon & Rectum	310
	Colon & Rectum	655	Bladder	162	Corpus Uteri	118
	Non-Hodgkin's Lymphoma	232	Non-Hodgkin's Lymphoma		Non-Hodgkin's Lymphoma	117
Allen	All Cancers	472	All Cancers	254	All Cancers	218
	Lung	93	Lung	58	Breast	57
	Breast	58	Prostate	57	Lung	35
	Prostate	57	Colon & Rectum	28	Colon & Rectum	25
	Colon & Rectum	53	Bladder/ Oral Cavity & Pharynx	12*	Corpus Uteri	12
	Pancreas/ Skin Melanomas	18 *	Leukemias	10	Pancreas/ Skin Melanomas	10 *
Beauregard	All Cancers	591	All Cancers	320	All Cancers	271
	Lung	121	Prostate	84	Breast	76
	Prostate	84	Lung	82	Lung	39
	Breast	77	Colon & Rectum	31	Colon & Rectum	32
	Colon & Rectum	63	Non-Hodgkin's Lymphoma	15	Cervix Uteri	17
	Non-Hodgkin's Lymphoma	22	Bladder	14	Corpus Uteri	12
Calcasieu	All Cancers	3706	All Cancers	1965	All Cancers	1741
	Lung	728	Prostate	526	Breast	481
	Prostate	526	Lung	433	Lung	295
	Breast	484	Colon & Rectum	239	Colon & Rectum	217
	Colon & Rectum		Bladder		Non-Hodgkin's Lymphoma	84
	Non-Hodgkin's Lymphoma	158	Non-Hodgkin's Lymphoma	74	Corpus Uteri	69

<sup>\*</sup>Number of cases is the same at each site

ТОР	FIVE CANCERS AND BY RE		R OF CASES DIAG ND PARISH, 1990-		IN LOUISIANA	
Region/Parish	Total		Males		Females	
Cameron	All Cancers	147	All Cancers	84	All Cancers	63
	Lung	31	Prostate	23	Breast	24
	Breast	24	Lung	22	Lung	9
	Prostate	23	Colon & Rectum		Colon & Rectum/ Kidney & Renal Pelvis/ Non-Hodgkin's Lymphoma	5 *
	Colon & Rectum	13	Bladder	5	Pancreas/ Skin Melanoma	3*
	Kidney & Renal Pelvis/ Non-Hodgkin's Lymphoma	8*	Kidney & Renal Pelvis/ Non-Hodgkin's Lymphoma/ Leukemias/ Oral Cavity & Pharynx	3 *	Corpus Uteri/ Larynx	2*
Jefferson Davis	All Cancers	667	All Cancers	354	All Cancers	313
	Lung	127	Prostate	88	Breast	95
	Breast	97	Lung	81	Lung	46
	Prostate	88	Colon & Rectum	39	Colon & Rectum	31
	Colon & Rectum	70	Bladder	22	Corpus Uteri	23
	Non-Hodgkin's Lymphoma	29	Non-Hodgkin's Lymphoma	15	Non-Hodgkin's Lymphoma/ Pancreas	14*
Region 6	All Cancers	5889	All Cancers	3297	All Cancers	2592
_	Lung	1129	Prostate	850	Breast	678
	Prostate	850	Lung	772	Colon & Rectum	361
	Colon & Rectum	750	Colon & Rectum	389	Lung	357
	Breast	686	Bladder	169	Corpus Uteri	112
	Bladder	232	Non-Hodgkin's Lymphoma		Non-Hodgkin's Lymphoma	101
Avoyelles	All Cancers	904	All Cancers	514	All Cancers	390
	Lung	167	Prostate	126	Breast	89
	Prostate	126	Lung	124	Colon & Rectum	56
	Colon & Rectum	121	Colon & Rectum	65	Lung	43
	Breast		Bladder		Non-Hodgkin's Lymphoma	17
	Non-Hodgkin's Lymphoma	35	Non-Hodgkin's Lymphoma		Corpus Uteri/ Ovary	15*

<sup>\*</sup>Number of cases is the same at each site

Region/Parish	Total		Males		Females	
Catahoula	All Cancers Prostate		All Cancers Prostate		All Cancers Breast	86 23
			Lung		Lung	12
	Lung		Colon & Rectum		Colon & Rectum	
	Breast		Bladder			10
	Colon & Rectum				Ovary	7
	Bladder	10	Stomach	5	Cervix Uteri/ Corpus Uteri	6 *
Concordia	All Cancers	285	All Cancers	134	All Cancers	151
	Lung	64	Lung	40	Breast	37
	Colon & Rectum/ Breast	37 *	Prostate		Lung	24
	Prostate	29	Colon & Rectum	15	Colon & Rectum	22
	Pancreas	16	Bladder	6	Pancreas	11
	Oral Cavity & Pharynx	10	Oral Cavity & Pharynx/ Pancreas	5 *	Corpus Uteri	8
Grant	All Cancers	399	All Cancers	207	All Cancers	192
	Lung	79	Prostate	59	Breast	45
	Prostate	59	Lung	53	Colon & Rectum	36
	Colon & Rectum	58	Colon & Rectum	22	Lung	26
	Breast	45	Non-Hodgkin's Lymphoma	9	Corpus Uteri	13
	Pancreas/ Non-Hodgkin's Lymphoma	14*	Pancreas		Pancreas/ Leukemias/ Kidney & Renal Pelvis	7 *
LaSalle	All Cancers	350	All Cancers	202	All Cancers	148
	Lung	70	Prostate	50	Breast	36
	Prostate	50	Lung	49	Lung	21
	Colon & Rectum	37	Colon & Rectum	23	Colon & Rectum	14
	Breast		Bladder		Non-Hodgkin's Lymphoma	8
	Non-Hodgkin's Lymphoma	21	Non-Hodgkin's Lymphoma	13	Skin Melanomas/ Ovary	7*

<sup>\*</sup>Number of cases is the same at each site

### TOP FIVE CANCERS AND NUMBER OF CASES DIAGNOSED IN LOUISIANA BY REGION AND PARISH, 1990-1994 Total Region/Parish Males Females 2654 All Cancers All Cancers 1483 All Cancers 1162 Rapides 485 Prostate 405 Breast 326 Lung 159 Prostate 405 Lung 326 Lung Colon & Rectum 346 Colon & Rectum 189 Colon & Rectum 157 Breast 330 Bladder 72 Non-Hodgkin's 52\* Lymphoma/ Corpus Uteri Bladder 102 Oral Cavity & 55 Pancreas 38 Pharynx 390 All Cancers All Cancers 686 All Cancers 296 Vernon 93 Breast Lung 137 Lung 84 **Breast** 86 Prostate 81 Lung 44 Colon & Rectum 82 Colon & Rectum 39 Colon & Rectum 43 Prostate 81 Bladder 31 Ovary 13 37 Non-Hodgkin's 17 Pancreas Bladder 11 Lymphoma 398 All Cancers 231 All Cancers All Cancers 167 Winn Lung 85 Lung 57 Breast 38 Prostate 52 Prostate 52 Lung 28 Colon & Rectum 47 Colon & Rectum 24 Colon & Rectum 23 38 Bladder 10 Breast 11 Ovary 14 \* Kidney & Renal Bladder/ 8 \* Cervix Uteri 8 Non-Hodgkin's Pelvis/ Lymphoma Non-Hodgkin's Lymphoma Region 7 All Cancers 11877 All Cancers 6528 All Cancers 5349 Prostate 2161 Breast 1541 2161 Prostate 1383 Colon & Rectum 724 2080 Lung Lung Breast 1549 Colon & Rectum 649 Lung 697 Colon & Rectum 1373 Bladder 284 Corpus Uteri 263 403 Oral Cavity & 226 Ovary Bladder 213 Pharynx

<sup>\*</sup>Number of cases is the same at each site

ТОР	FIVE CANCERS AND BY RE		ER OF CASES DIAG ND PARISH, 1990-1		IN LOUISIANA	
Region/Parish	Total		Males		Females	
Bienville	All Cancers	480	All Cancers	266	All Cancers	214
	Prostate	103	Prostate	103	Breast	50
	Lung	78	Lung	54	Colon & Rectum	34
	Colon & Rectum	60	Colon & Rectum	26	Lung	24
	Breast	51	Leukemias	11	Corpus Uteri	12
	Leukemias	17	Larynx/ Skin Melanomas	7 *	Bladder	10
Bossier	All Cancers	1647	All Cancers	908	All Cancers	739
	Lung	314	Prostate	291	Breast	219
	Prostate	291	Lung	202	Lung	112
	Breast	220	Colon & Rectum	78	Colon & Rectum	79
	Colon & Rectum	157	Bladder	43	Ovary	41
	Bladder	56	Non-Hodgkin's Lymphoma	34	Corpus Uteri	37
Caddo	All Cancers	5952	All Cancers	3198	All Cancers	2754
	Prostate	1058	Prostate	1058	Breast	819
	Lung	1017	Lung	667	Colon & Rectum	384
	Breast	822	Colon & Rectum	314	Lung	350
	Colon & Rectum	698	Bladder	138	Corpus Uteri	128
	Non-Hodgkin's Lymphoma	198	Oral Cavity & Pharynx	114	Non-Hodgkin's Lymphoma	106
Claiborne	All Cancers	404	All Cancers	214	All Cancers	190
	Prostate		Prostate		Breast	62
	Lung	65	Lung	36	Lung	29
	Breast	62	Colon & Rectum	26	Colon & Rectum	23
	Colon & Rectum	49	Pancreas	12	Corpus Uteri	7
	Leukemias	14	Leukemias	9	Skin Melanomas/ Ovary/ Non-Hodgkin's Lymphoma	6 '
DeSoto	All Cancers	621	All Cancers	354	All Cancers	267
	Prostate	130	Prostate	130	Breast	80
	Lung	106	Lung	78	Colon & Rectum	36
	Breast	80	Colon & Rectum	34	Lung	28
	Colon & Rectum	70	Bladder		Cervix Uteri/ Corpus Uteri	12 *
	Bladder	25	Leukemias	11	Stomach/Bladder	10 *

<sup>\*</sup>Number of cases is the same at each site

#### TOP FIVE CANCERS AND NUMBER OF CASES DIAGNOSED IN LOUISIANA BY REGION AND PARISH, 1990-1994 Total Region/Parish Males Females All Cancers 762 All Cancers 420 All Cancers 342 Natchitoches Lung 160 Prostate 115 Breast 95 Prostate 115 Lung 108 Colon & Rectum 53 Breast/ 95 \* Colon & Rectum 42 Lung 52 Colon & Rectum 30 Bladder 22 Corpus Uteri Bladder 17 Oral Cavity & 28 Oral Cavity & 21 Cervix Uteri/ 12 3 Pharynx Ovary Pharynx 115 All Cancers All Cancers 206 All Cancers Red River 91 Prostate 38 Prostate 38 Breast 23 27 Colon & Rectum 35 Lung 16 Lung 12 Lung Colon & Rectum 28 Colon & Rectum 8 23 Oral Cavity & 4 \* Skin Melanomas/ Breast 4 \* Pharynx/Stomach/ Cervix Uteri/ Corpus Uteri/ Pancreas/ Bladder Leukemias 7\* Esophagus/ Kidney & Renal Skin Melanomas/ 3\* Pancreas Skin Melanomas Pelvis/ Pancreas Sabine All Cancers 592 All Cancers 344 All Cancers 248 Prostate 106 Prostate 106 Breast 54 100 Lung 74 Colon & Rectum 38 Lung 26 Colon & Rectum 79 Colon & Rectum 41 Lung 54 Bladder 16 Corpus Uteri 19 Breast Bladder 26 Oral Cavity & 11 Cervix Uteri 16 Pharynx Webster All Cancers 1213 All Cancers 709 All Cancers 504 Prostate 238 Prostate 238 Breast 139 137 Lung 205 Lung 68 Lung Breast 142 Colon & Rectum 76 Colon & Rectum 61 Colon & Rectum 137 Bladder 37 Corpus Uteri 27 Bladder 50 Oral Cavity & 22 \* Non-Hodgkin's 26 Pharynx/ Lymphoma Leukemias

<sup>\*</sup>Number of cases is the same at each site

Region/Parish	Total		Males		Females	
Region 8	All Cancers	7803	All Cancers	4295	All Cancers	3508
_	Lung	1447	Prostate	1293	Breast	1015
	Prostate	1293	Lung	981	Colon & Rectum	467
	Breast	1025	Colon & Rectum	450	Lung	466
	Colon & Rectum	917	Bladder	179	Corpus Uteri	150
	Bladder	241	Oral Cavity & Pharynx	144	Cervix Uteri	119
Caldwell	All Cancers	261	All Cancers	141	All Cancers	120
	Lung	50	Lung	40	Breast	31
	Colon & Rectum	38	Prostate	35	Colon & Rectum	20
	Prostate	35	Colon & Rectum	18	Lung	10
	Breast	31	Leukemias	7	Cervix Uteri	7
	Leukemias	12	Pancreas	6	Pancreas/Ovary/ Non-Hodgkin's Lymphoma/ Leukemias	5 *
E. Carroll	All Cancers	225	All Cancers	124	All Cancers	101
	Lung	48	Prostate	43	Breast	30
	Prostate	43	Lung	33	Lung	15
	Breast	30	Colon & Rectum	12	Colon & Rectum	14
	Colon & Rectum	26	Oral Cavity & Pharynx	6	Pancreas/ Cervix Uteri	5 *
	Oral Cavity & Pharynx/ Pancreas/ Leukemias	8 *	Leukemias	4	Kidney & Renal Pelvis/ Leukemias	4 *
Franklin	All Cancers	497	All Cancers	261	All Cancers	236
	Lung	87	Prostate		Breast	60
	Prostate		Lung	61	Colon & Rectum	31
	Breast		Colon & Rectum		Lung	26
	Colon & Rectum		Kidney & Renal Pelvis		Pancreas	11
	Kidney & Renal Pelvis	21	Bladder/ Leukemias	10 *	Corpus Uteri	10

<sup>\*</sup>Number of cases is the same at each site

#### TOP FIVE CANCERS AND NUMBER OF CASES DIAGNOSED IN LOUISIANA BY REGION AND PARISH, 1990-1994 Total Region/Parish Males Females All Cancers 462 All Cancers 259 All Cancers 203 Jackson Prostate 85 Prostate 85 Breast 53 49 Colon & Rectum 67 Lung 26 Lung 59 Colon & Rectum 33 Lung 18 Colon & Rectum Breast 54 Oral Cavity & 10 \* Cervix Uteri 11 Pharynx/Bladder Non-Hodgkin's 16 Skin Melanomas 9 Corpus Uteri 10 Lymphoma 817 All Cancers 455 All Cancers Lincoln All Cancers 362 Prostate 157 Prostate 157 Breast 124 Lung 145 Lung 95 Lung 50 Breast 126 Colon & Rectum 50 Colon & Rectum 39 Colon & Rectum 89 Oral Cavity & 15 Corpus Uteri 19 Pharynx Skin Melanomas 28 Bladder 13 Skin Melanomas 16 194 All Cancers 110 All Cancers All Cancers Madison 84 Lung 43 Prostate 33 Colon & Rectum 22 Colon & Rectum/ 30 Breast 33 Lung 15 Prostate Breast 15 Colon & Rectum 11 Lung 13 Esophagus 8 Esophagus 6 Ovary 5 Pancreas 4 Kidney & Renal Stomach 4\* Pelvis/ Stomach 723 All Cancers 430 All Cancers Morehouse All Cancers 293 Prostate 147 Prostate 147 Breast 87 91 Colon & Rectum 42 Lung 121 Lung Breast 87 Colon & Rectum 41 Lung 30 Colon & Rectum 83 Bladder 27 Corpus Uteri 15 Bladder 33 Pancreas 20 Ovary/ Pancreas 12\* 1571 All Cancers Ouachita All Cancers 3004 All Cancers 1433 544 Prostate 446 Breast 451 Lung Breast 455 Lung 345 Lung 199 446 Colon & Rectum 173 Colon & Rectum Prostate 189 362 Bladder 76 Cervix Uteri/ 53 \* Colon & Rectum Corpus Uteri 98 Non-Hodgkin's Bladder 52 Pancreas 44 Lymphoma

<sup>\*</sup>Number of cases is the same at each site

Region/Parish	Total		Males		Females	
Richland	All Cancers	593	All Cancers		All Cancers	24
	Lung	136	Prostate	101	Breast	6
	Prostate	101	Lung	87	Lung	4
	Breast	61	Colon & Rectum	37	Colon & Rectum	2
	Colon & Rectum		Oral Cavity & Pharynx		Corpus Uteri	1:
	Leukemias	20	Bladder/ Leukemias/Kidney & Renal Pelvis	12 *	Cervix Uteri/ Ovary	9
Tensas	All Cancers	140	All Cancers	74	All Cancers	6
	Lung	36	Lung	25	Colon & Rectum/ Lung	11
	Colon & Rectum	22	Prostate	16	Breast	1
	Prostate	16	Colon & Rectum	11	Corpus Uteri	
	Breast	10	Oral Cavity & Pharynx/Kidney & Renal Pelvis/ Pancreas	3 *	Cervix Uteri	
	Corpus Uteri	6	Esophagus/ Larynx/Bladder	2*	Ovary	,
Union	All Cancers	548	All Cancers	305	All Cancers	24
	Lung	113	Prostate	86	Breast	6
	Prostate	86	Lung	85	Colon & Rectum	3
	Breast	66	Colon & Rectum	19	Lung	2
	Colon & Rectum	49	Oral Cavity & Pharynx		Leukemias	1.
	Oral Cavity & Pharynx	19	Larynx		Corpus Uteri/ Non-Hodgkin's Lymphoma/ Pancreas	10
W. Carroll	All Cancers		All Cancers		All Cancers	12:
	Prostate		Prostate		Breast	2
	Lung		Lung		Colon & Rectum	2
	Colon & Rectum	43	Colon & Rectum	23	Lung	1
	Breast		Bladder	10	Leukemias	
	Leukemias	14	Oral Cavity & Pharynx	9	Brain	

<sup>\*</sup>Number of cases is the same at each site

#### TOP FIVE CANCERS AND NUMBER OF CASES DIAGNOSED IN LOUISIANA BY REGION AND PARISH, 1990-1994 Total Region/Parish Males Females Region 9 All Cancers 7025 All Cancers 3871 All Cancers 3154 1416 Prostate 1059 Breast 909 Lung 466 Prostate 1059 Lung 950 Lung 922 Colon & Rectum 375 Colon & Rectum 392 Breast Colon & Rectum 767 Bladder 205 Ovary 135 274 Non-Hodgkin's Bladder 143 Corpus Uteri 117 Lymphoma 1247 All Cancers 732 All Cancers Livingston All Cancers 515 264 Prostate 203 Breast Lung 148 203 Lung Prostate 185 Lung 79 Breast 151 Colon & Rectum 57 Colon & Rectum 57 Colon & Rectum 114 Bladder 41 Ovary/ 19 \* Non-Hodgkin's Lymphoma Bladder 21\* Cervix Uteri 49 Kidney & Renal 18 Pelvis/ Non-Hodgkin's Lymphoma/ Oral Cavity & Pharynx 119 All Cancers 66 All Cancers St. Helena All Cancers 53 25 Prostate 23 Breast 16 Lung 23 Lung 19 Colon & Rectum 8 Prostate Breast 16 Colon & Rectum 5 Lung 6 Colon & Rectum 13 Oral Cavity & 2 \* Corpus Uteri 4 Pharynx/ Esophagus/ Stomach/Liver & Intrahepatic Bile Ducts/Testis/ Leukemias Stomach/ 3 \* Stomach 5 Other Nonepithelial Skin Cervix Uteri Cancer/ Pancreas/ Non-Hodgkin's Lymphoma/ Multiple Myeloma/ Bladder/Kidney & Renal Pelvis

<sup>\*</sup>Number of cases is the same at each site

TOP	FIVE CANCERS AND BY RE	_	ER OF CASES DIAG ND PARISH, 1990-19		IN LOUISIANA	
Region/Parish	Total		Males		Females	
St. Tammany	All Cancers	2770	All Cancers	1512	All Cancers	1258
	Lung	569	Prostate	403	Breast	398
	Breast	405	Lung	362	Lung	207
	Prostate	403	Colon & Rectum	151	Colon & Rectum	143
	Colon & Rectum	294	Bladder	97	Ovary	59
	Bladder	131	Non-Hodgkin's Lymphoma	71	Non-Hodgkin's Lymphoma	43
Tangipahoa	All Cancers	1830	All Cancers	974	All Cancers	856
31 4 44	Lung	358	Prostate	273	Breast	222
	Prostate	273	Lung	245	Colon & Rectum	120
	Breast	225	Colon & Rectum	95	Lung	113
	Colon & Rectum	215	Bladder	51	Pancreas	37
	Bladder	70	Oral Cavity & Pharynx/ Non-Hodgkin's Lymphoma	27 *	Ovary	35
Washington	All Cancers	1059	All Cancers	587	All Cancers	472
	Lung	200	Prostate	157	Breast	125
	Prostate	157	Lung	139	Colon & Rectum	64
	Colon & Rectum	131	Colon & Rectum	67	Lung	61
	Breast	125	Non-Hodgkin's Lymphoma/ Oral Cavity & Pharynx	23*	Corpus Uteri	24
	Non-Hodgkin's Lymphoma	42	Larynx	21	Ovary	21

\*Number of cases is the same at each site

Source: Louisiana Tumor Registry

# F. Chronic Disease - Behavioral Risk Factor Surveillance System (BRFSS)

Preventable illness and injury, such as heart disease, cancer, cerebrovascular disease, and motor vehicle-related injuries result in the premature death or compromised lifestyle of thousands of Louisiana residents each year. Most of the adults in the state report that they engage in at least one health behavior that place them at an increased, but avoidable, risk for chronic diseases or unintentional injuries.

Prevention of illness *before* it occurs is the ultimate goal of the public health system. Achievement of this goal requires an understanding of the risk factors which lead to illness, and of the behaviors which put an individual at risk of illness. The goal of <u>primary prevention</u> programs is to reduce or prevent initiation of behaviors, such as smoking, alcohol use, sedentary lifestyle, and poor eating habits, known to be associated with chronic disease. The goal of <u>secondary prevention</u> is to reduce or delay chronic illnesses and deaths through the early identification and treatment of persons with early signs/symptoms of diseases, by promoting the use of screening exams for early detection of certain cancers, hypertension, hypercholesterolemia, and diabetes.

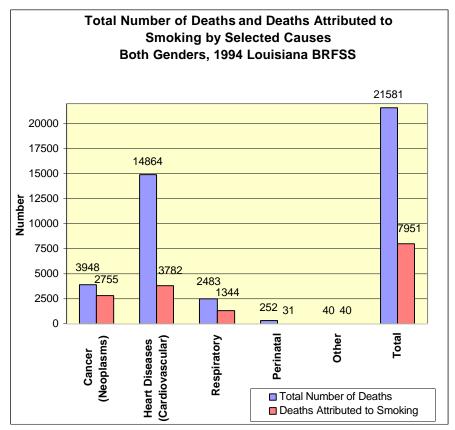
To collect information needed by its primary and secondary prevention programs, in 1991 the Louisiana Department of Health and Hospitals (DHH), Office of Public Health, in cooperation with the Centers for Disease Control and Prevention (CDC), began participation in the *Behavioral Risk Factor Surveillance System (BRFSS)* (Remington, et al., 1988). The purpose of the BRFSS is to provide state-level prevalence data on health-related behaviors and attitudes. Information collected in the survey is being used in the state's ongoing effort to plan, develop, and evaluate health promotion and disease prevention programs. Data from the BRFSS are also used to monitor progress toward achieving the national objectives of the Healthy People 2000 program of the United States Department of Health and Hospitals (USDHHS, 1990).

Adults ages 18 years and older who do not live in institutions such as geriatric centers, hospitals, jail/prison are included in the BRFSS. Some survey questions are asked each year and some are asked on alternating years. The following information, representing non-institutionalized Louisiana adult residents ages 18 and older, are from the most recent BRFSS that collected the specified data.

# **BRFSS: TOBACCO USE**

# **Cigarette Smoking**

One in five deaths in Louisiana is related to cigarette smoking. Cigarette smoking is the leading cause of preventable death and disease in the United States, accounting for more than 400,000 deaths nationally each year. Each year smoking kills more people than alcohol, motor vehicle injuries, suicide, AIDS, homicide, illegal drugs, and fires combined.

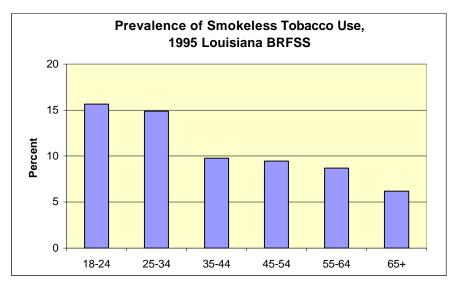


Source: Louisiana Office of Public Health, Chronic Diseases Control Program

In 1994, twenty percent (7,951) of all deaths in Louisiana were attributable to cigarette smoking. Almost all (99%) these deaths occurred as a result of cancer, heart disease, stroke, and vascular and respiratory diseases. In that same year, according to BRFSS results, one out of four adult Louisianans were current smokers. Another 17.1% were former smokers. The prevalence of current smoking was slightly higher for males (26.3%) than for females (24.2%). Approximately 25.3% of Whites ages 18 and above smoke, while 22.2% of the Non-White population are current smokers. Among current smokers, 50.8% attempted to quit smoking for one or more days during the 12 months preceding the survey. For the most part, these data have been stable since 1990. However, smoking prevalence rates have been rising in one group – young White females.

## **Smokeless Tobacco**

The link between occurrence of oral cancer and the use of smokeless tobacco, snuff and chewing tobacco has been clearly documented. The available research shows that snuff use increases the risk of oral cancer among nonsmokers four fold, and among chronic snuff users the excess risk of cancer of the gum and buccal mucosa reaches nearly fifty fold. In the United States, more than 30,000 cases of oral cancer are attributed to the use of smokeless tobacco yearly.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program

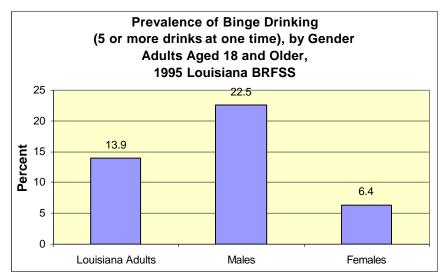
In the 1994 BRFSS, 3% of the adult population reported that they were current users of smokeless tobacco. However, 10.6% of the respondents indicated that they had used or tried smokeless tobacco products at some time. The overwhelming majority of smokeless tobacco users were male, with 6.4% reporting current use and 25.6% reporting "ever" use.

State and national data show that most current tobacco users actually begin using during their youth. The only proven method for preventing youth addiction is increased taxation. Studies have shown that about 10% fewer kids become addicted with each \$0.25 raise in tobacco taxation. The amount of taxation on cigarettes in Louisiana is low compared to other states.

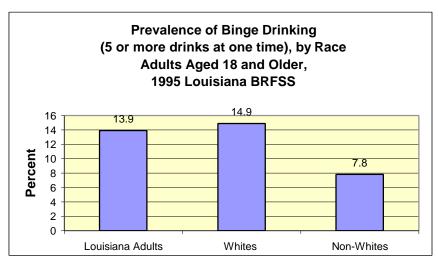
# **BRFSS: ALCOHOL USE**

There is no doubt about the health and social problems associated with heavy, chronic, and binge drinking. Liver diseases are associated with chronic alcohol abuse and fatal motor vehicle accidents are associated with heavy chronic and binge drinking. Many studies suggest that crashes in which alcohol plays a role tend to be much more severe than other crashes. Nationally, alcohol plays a role in about 20% of crashes involving serious injury to driver or passenger, about 50% of all fatal crashes, and about 60% of single-vehicle fatal crashes. Estimates place the number of deaths in the U.S. attributed to alcohol-related motor vehicle crashes at over 22,000.

Chronic drinking is defined as 2 or more drinks daily for 30 days or at least 60 drinks per month. Binge drinking is defined as 5 or more drinks on one or more occasions within 30 days.

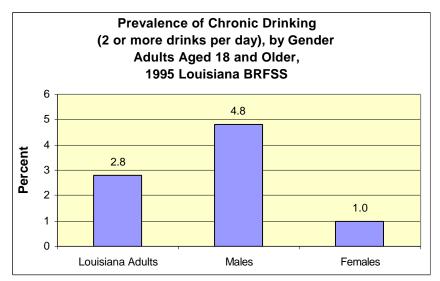


Source: Louisiana Office of Public Health, Chronic Diseases Control Program

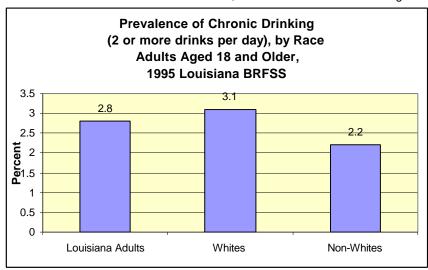


Source: Louisiana Office of Public Health, Chronic Diseases Control Program

Based on the 1995 BRFSS, among persons who had alcohol in the month prior to the survey, approximately 29% had engaged in binge drinking (had 5 or more drinks at one time on one or more occasion within the month preceding the survey). This is equivalent to approximately 13.9% of the Louisiana adult population reporting at least one episode of binge drinking in the 30 days prior to the survey. Men (22.5%) were four times more likely to engage in binge drinking than women (6.4%). Whites (14.9%) were more likely to report binge drinking than Non-Whites (7.8%). The prevalence of binge drinking decreased with increasing age.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program



Source: Louisiana Office of Public Health, Chronic Diseases Control Program

Approximately 2.8% of adult Louisianians reported that they consumed at least two alcoholic drinks each day of the month prior to the survey. Males (4.8%) were more likely than females (1.0%) to report chronic alcohol use. Whites (3.1%) were more likely than Non-Whites (2.2%) to report chronic alcohol use.

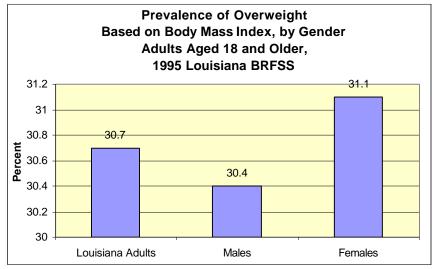
Of those who indicated they had consumed alcohol in the month prior to the survey, 53.5% indicated that on at least one occasion they had driven when they had too much to drink.

# **BRFSS: NUTRITION AND EXERCISE**

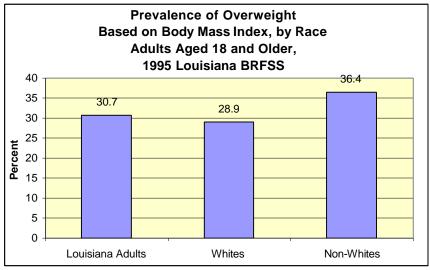
Nutrition and exercise are related to weight or body fatness. Increases in body fatness are associated with high blood pressure, diabetes, coronary heart disease, and atherosclerosis. Additionally, high fat, low fiber diets are associated with various types of cancer.

# Overweight

The Body Mass Index (BMI) is a measure of body fatness derived from height and weight. For males a BMI of 27.8 or greater is considered overweight. For females a BMI of 27.3 or higher is considered overweight.<sup>3</sup>



Source: Louisiana Office of Public Health, Chronic Diseases Control Program



Source: Louisiana Office of Public Health, Chronic Diseases Control Program

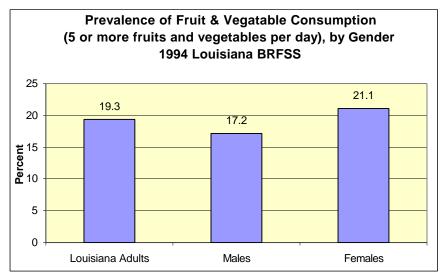
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<sup>&</sup>lt;sup>3</sup> National Center for Health Statistics. <u>Healthy People 2000 Review, 1997</u>. Hyattsville, Maryland: Public Health Service. 1997.

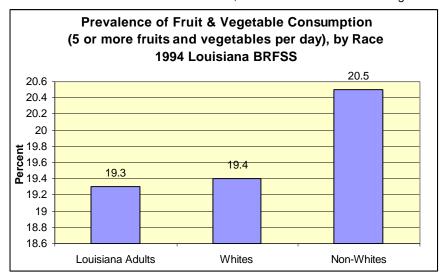
Nearly one third (30.7%) of Louisiana adults are overweight. With increasing age, there is a general trend toward increasing prevalence of overweight. Females (30.4%) were slightly less likely than males (31.1%) to be overweight and Non-Whites (36.4%) were more likely than Whites (28.9%) to be overweight. Over time, most of the population becomes overweight. Interestingly, Americans overall are not eating many more calories. The weight increases are tied more directly to a marked decline in physical activity.

# Fruit & Vegetable Consumption

The National Academy of Sciences, the U.S. Department of Agriculture, the U.S. Department of Health and Human Services, The American Cancer Society's and the National Cancer Institute's dietary guidelines for fiber intake specifies that at least 5 servings of fruit/vegetables per day are consistent with the maintenance of good health and cancer prevention.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program

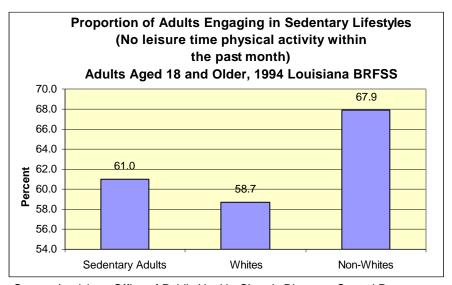


Source: Louisiana Office of Public Health, Chronic Diseases Control Program

According to the 1994 BRFSS data, less than 20% of Louisiana's adults reported consumption of 5 fruits and vegetables per day. Males (17.2%) were less likely than females (21.1%); and Whites (19.4%) were less likely than Non-Whites (20.5%) to report meeting the dietary fiber guideline.

## **Physical Activity**

The Surgeon General's report *Physical Activity and Health*<sup>4</sup> concluded that individuals of all ages who engage in regular physical activity have a lower mortality rate than individuals with sedentary lifestyles. While higher levels of fitness have greater health benefits, studies suggest that even moderate amounts of activity are beneficial. National Health Objective 1.4 of the Healthy People 2000 program suggests that participation in aerobic activities for at least 20 minutes on at least 3 days per week is a desirable goal for cardiovascular fitness. Increases in physical activity are associated with decreases in body fatness, lowering of blood pressure, and increased glucose tolerance.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program

According to the 1994 BRFSS data, one in three Louisiana adults are physically inactive; that is, they had not been involved in leisure time physical activities in the month preceding the survey. Another 26.9% engage in irregular physical activity; that is, less than 3 times a week or less than 20 minutes per session. Overall, 61% were sedentary. The prevalence of sedentary lifestyles was similar for males and females. However, a larger proportion of Non-Whites (67.9%) than Whites (58.7%) reported sedentary lifestyles.

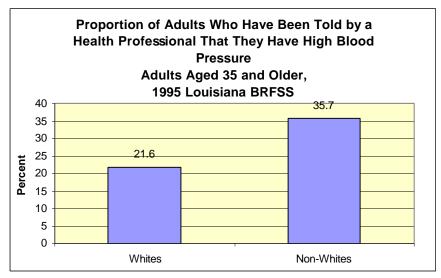
<sup>&</sup>lt;sup>4</sup> U.S. Department of Health and Human Services. <u>Physical Activity and Health: A Report of the Surgeon General.</u> Atlanta, GA. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 1996.

# **BRFSS: HEALTH STATUS**

Overall, the health status of the adult population may be reflected in the chronic disease burden. Chronic diseases of public health importance (i.e. diseases that are among the leading causes of death, that have high economic and disability impact, etc.) include hypertension, high cholesterol, and diabetes. The goal of public health with regard to these diseases is early detection through periodic screening and treatment.

## **High Blood Pressure (Hypertension)**

High blood pressure is associated with increased risk for stroke, kidney failure and coronary heart disease. Blood pressure tends to increase with age and can be affected by weight gain, physical inactivity, and, to a lesser extent, diet. Blood pressure should be checked periodically; individuals with high levels (greater than 140/90 mm Hg) recorded more than once should be referred for treatment.

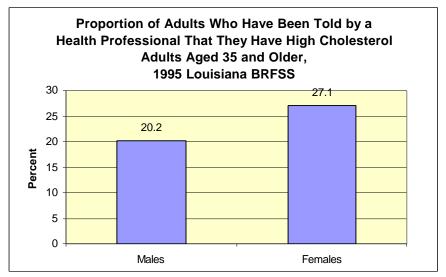


Source: Louisiana Office of Public Health, Chronic Diseases Control Program

Among those 35 years of age and older, 27.4% of Whites and 45.9% of Non-Whites indicated they were ever told that they had high blood pressure.

# **High Cholesterol**

High blood cholesterol is one of the major modifiable risk factors for coronary heart disease. It has been estimated that each 1% reduction in blood cholesterol levels results in a 2% reduction in the risk for heart disease.

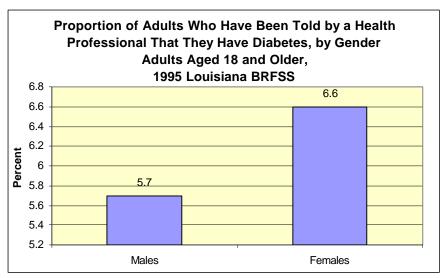


Source: Louisiana Office of Public Health, Chronic Diseases Control Program

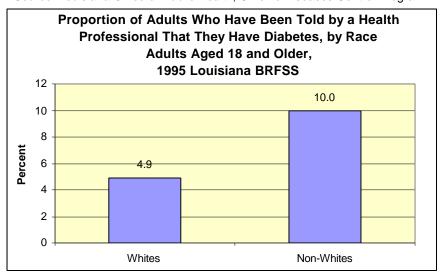
One in four (24.5%) Louisiana adults age 35 and above indicated that a physician or nurse had told them that they had high blood cholesterol. Approximately 20.2% of the males and 27.1% of the females, ages 35 and older, indicated they had been told by a health professional that they had high cholesterol.

## **Diabetes**

Diabetes is a complex disease, characterized by inadequate insulin production or the inability of the body to use insulin. Health consequences of diabetes include glaucoma eye disease and blindness, kidney problems and kidney failure, poor circulation, amputation of limbs, nerve damage, dental disease, and cardiovascular disease.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program



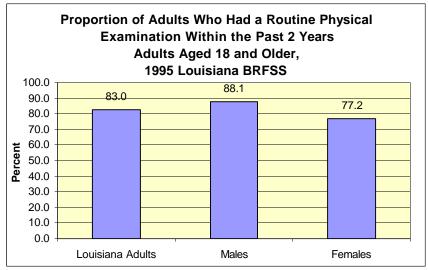
Source: Louisiana Office of Public Health, Chronic Diseases Control Program

According to the 1995 BRFSS data, the prevalence of diabetes among Louisiana adults was approximately 5.7% for males and 6.6% for females. Non-Whites (10.0%) reported a higher prevalence of diabetes than Whites (4.9%). The prevalence of diabetes increased with age. Among respondents who were 55 years of age or older the reported prevalence was 15.3%.

# **BRFSS: PREVENTIVE HEALTH CARE**

#### **Routine Medical Examinations**

The routine medical examination gives the physician an opportunity to assess the general health status of patients, to assess the need for screening, and to counsel patients regarding perceived issues that affect the patient's health. Thus, it is the prime opportunity to practice preventive care.

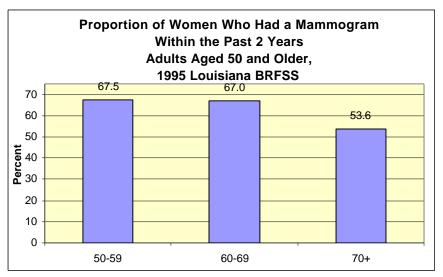


Source: Louisiana Office of Public Health, Chronic Diseases Control Program

In the 1995 BRFSS, 83% of the respondents had a routine checkup within the last 2 years. Women (88.1%) were more likely than men (77.2%) to have had a routine checkup within the past 2 years. Non-Whites (88.5%) were slightly more likely than Whites (81.1%) to have had a routine checkup within the past 2 years.

# Mammography

Among women, breast cancer is the most commonly diagnosed cancer. Routine breast examinations by a health professional, or clinical breast examination and mammography are the most effective ways of detecting breast cancer early and improving the chances of survival. The National Cancer Institute, the American Cancer Society, and the U.S. Department of Health and Human Services recommend that women have a mammogram each year beginning at age 50. There is some controversy about the benefits of screening younger women.

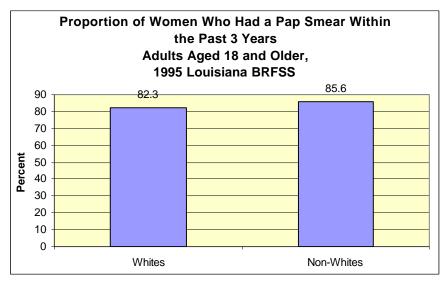


Source: Louisiana Office of Public Health, Chronic Diseases Control Program

In the 1995 BRFSS, among Louisiana women ages 50 and older, 62.6% reported they had a mammogram within the 2 years before the survey. There was a slight decrease in mammography utilization rates with increased age. Women ages 70 and older were less likely to have met mammography screening guidelines than women ages 50-69 years. Non-Whites (62.5%) were less likely than Whites (64.9%) to report that they had a mammogram within the last 2 years.

# **Pap Smear**

A Pap smear is used to obtain a sample of cervical cells and evaluate the sample for dysplasia or cervical cancer. The American Cancer Society recommends annual Pap tests for all women who are or have been sexually active or who have reached age 18. Once 3 annual Pap smears have been normal, the test can be done every 3 years unless a physician recommends more frequent testing.

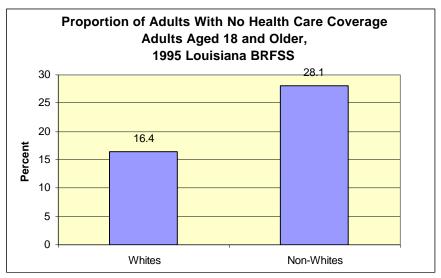


Source: Louisiana Office of Public Health, Chronic Diseases Control Program

Among women who had an intact uterus (had not had a hysterectomy), 83.7% had a Pap smear within the past three years. Non-White women (85.6%) were slightly more likely than White women (82.3%) to have had a Pap smear within the past three years.

# **BRFSS: MEDICAL CARE COVERAGE**

Availability of health care coverage is an important issue in an individual's access to health care. An important Year 2000 Health Objective for the nation is to "improve financing and delivery of clinical preventive services so that virtually no American has a financial barrier to receiving, at a minimum, the screening, counseling, and immunization services recommended by the U.S. Preventive Services Task Force." Individuals without medical coverage, and even some individuals with coverage (underinsured), may not receive health care due to the cost of care. Therefore, measures of utilization of health care, including routine checkups, are dependent on coverage. The BRFSS assesses health care coverage by asking about private insurance, prepaid plans (HMOs), or Medicare.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program

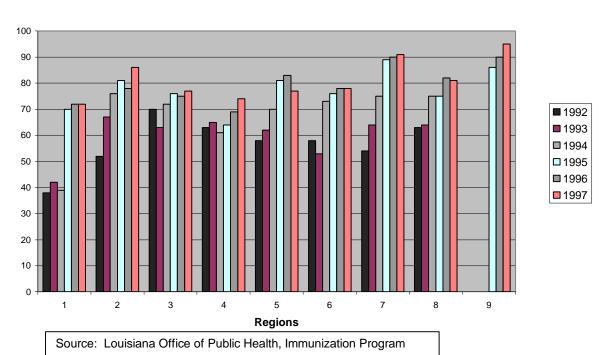
In the 1995 BRFSS, 20.9% of the Louisiana adults who were surveyed reported that they have no health care coverage. Females (21.9%) were more likely to be without health care coverage than males (19.8%). There was a clear racial difference, with Non-Whites (28.1%) being more likely than Whites (16.4%) to report no health care coverage.

# III. HEALTH ASSESSMENT PROGRAMS

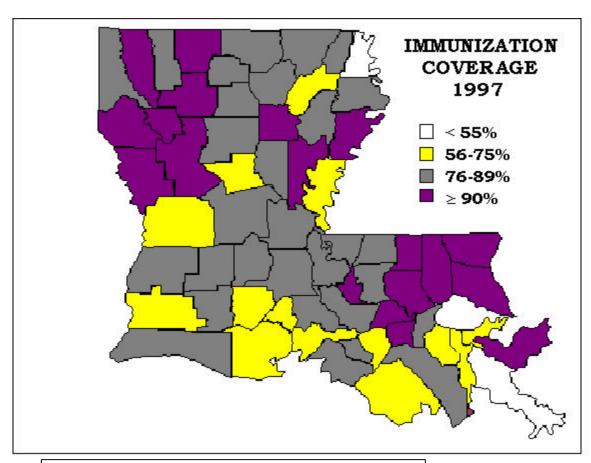
# A. Immunization Coverage

The *Immunization Program* of the Office of Public Health conducts periodic assessments to determine the immunization coverage rates throughout the state. As the graph below displays, rates of coverage have been steadily increasing since 1992, though there are year to year variations.

# Immunization Coverage at 24 Months by Region Percent Up to Date at 24 Months



The map below displays the percent coverage at 24 months of those served in public clinics. East Carroll and Plaquemines parishes have the lowest immunization coverage rates in the state (see following table).



Source: Louisiana Office of Public Health, Immunization Program

Louisiana Public Clinic Immunization Assessments, Percent* of Children 24-35 Months Old Who Were Up-To- Date** at Age 24 Months				
Region/Parish	1996	1997		
Region 1	72	72		
Jefferson	67	74		
Orleans	77	74		
Plaquemines	45	41		
St. Bernard	69	90		
Region 2	78	86		
Ascension	71	90		
E. Baton Rouge	73	77		
E. Feliciana	66	87		
Iberville	90	84		
Pointe Coupee	90	82		
W. Baton Rouge	96	91		
W. Feliciana	91	89		
Region 3	75	77		
Assumption	81	71		
Lafourche	78	78		
St. Charles	63	66		
St. James	87	93		
St. John	68	82		
St. Mary	74	79		
Terrebonne	61	57		
Region 4	69	74		
Acadia	55	64		
Evangeline	87	88		
Iberia	66	68		
Lafayette	63	69		
St. Landry	66	77		
St. Martin	74	80		
Vermilion	74 71			
	83	73 77		
Region 5		77		
Allen	91 95	81		
Beauregard	85 78	79 71		
Calcasieu	83			
Cameron Davis		78		
Jefferson Davis	82	84 78		
Region 6	78 70			
Avoyelles	79 86	79 01		
Catahoula	86 67	91 64		
Cront	67 76	64		
Grant	76	72		
LaSalle	89	89		
Rapides	83	84		
Vernon	54	75 70		
Winn	85	78		

Percent* of Children 2 Date**	inic Immunization Asses 4-35 Months Old Who W at Age 24 Months	ere Up-To-
Region/Parish	1996	1997
Region 7	90	91
Bienville	95	98
Bossier	86	97
Caddo	84	87
Claiborne	94	91
DeSoto	95	92
Natchitoches	88	91
Red River	90	95
Sabine	91	93
Webster	90	89
Region 8	82	81
Caldwell	91	91
E. Carroll	58	51
Franklin	77	85
Jackson	82	80
Lincoln	82	86
Madison	85	78
Morehouse	87	79
Ouachita	76	80
Richland	81	72
Tensas	90	91
Union	84	83
W. Carroll	90	82
Region 9	90	95
Livingston	89	94
St. Helena	100	100
St. Tammany	84	92
Tangipahoa	93	97
Washington	92	95
STATEWIDE	79	81

<sup>\*</sup>Region and statewide figures are averages weighted by population

Note: Parish-specific percentages in a region will not average to regional percentages because some parishes are larger than others
Source: Louisiana Office of Public Health, Immunization Program

<sup>\*\*-</sup>DTP, 3-OPV, & 1-MMR

## B. Infectious Disease Surveillance

## **Disease Surveillance**

Surveillance of infectious diseases, chronic diseases, and injuries is essential to understanding the health status of a population and planning effective prevention programs. The history of the reporting and tracking of diseases that pose a risk to public health in the U.S. dates back more than a century. Fifty years ago, morbidity statistics published each week were accompanied by the statement "No health department, state or local, can effectively prevent or control disease without the knowledge of when, where, and under what condition, cases are occurring." Today, disease surveillance remains the primary tool for the gathering of information essential to controlling disease spread in the population. Achievement of the Centers for Disease Control Healthy People 2000 objectives depends in part on our ability to monitor and compare progress toward the objectives at the federal, state, and local levels.

Infectious disease surveillance activities are a primary function of the programs within the Department of Health and Hospitals (DHH), Office of Public Health (OPH). Many OPH programs exist to conduct disease surveillance for the state of Louisiana. A sampling of these programs includes the *Infectious Epidemiology Program, Sexually Transmitted Diseases Control Program, Tuberculosis Control Program, HIV/AIDS Program*, and *Immunizations Program*.

Disease surveillance involves the collection of pertinent data, the tabulation and evaluation of the data, and the dissemination of the information to all who need to know. This process is a very important aspect of public health because its purpose is the reduction of morbidity. The immediate use of surveillance is for disease control; the long term use is to assess trends and patterns in morbidity.

Surveillance also facilitates epidemiologic and laboratory research, both by providing cases for more detailed investigation or case-control studies, and by directing which research avenues are most important. Reports of unusual clusters of disease are often followed by an epidemiologic investigation to identify and remove any common source exposure or to reduce other associated risks of transmission.

#### **Notifiable Diseases**

Reporting of notifiable diseases to the health department is the backbone of disease surveillance in Louisiana and nationally. The Sanitary Code, State of Louisiana, Chapter II, entitled "The Control of Diseases," charges the Board of Health to promulgate a list of diseases that are required to be reported, who is responsible for reporting, what information is required for each case of disease reported, what manner of reporting is needed, and to whom the information is reported.

Reporting of cases of communicable diseases is important in the planning and evaluation of disease prevention and control programs, in the assurance of appropriate medical therapy, and in the detection of common-source outbreaks. Surveillance data gathered through the reporting of notifiable diseases are used to document disease transmission, quantify morbidity and estimate trends, and identify risk factors for disease acquisition.

All individuals reported to have selected diseases are routinely followed up by health departments, either directly or through their physician or other health care provider. This follow up is done to ensure initiation of appropriate therapy for the individual and prophylactic therapy for contacts of persons with infectious conditions. All reports are confidential.

Confidential disease reporting has been an essential element in monitoring and maintaining the health of the public in Louisiana. Through participation in disease-reporting, physicians and other health care providers are integral to ensuring that public health resources are used most effectively.

Mandatory reporting is required for a number of infectious diseases, including sexually transmitted diseases, HIV/AIDS, tuberculosis, mumps, and many others. The following description of surveillance procedures for measles and rubella is typical of the procedures followed for all reportable diseases.

## **Surveillance for Measles and Rubella (German Measles)**

All health care providers are required to report suspected cases of measles and rubella by phone immediately to their local public health unit. When a possible case is reported, local and statewide public health personnel are mobilized immediately to evaluate the case and to establish a rapid control effort in order to prevent the spread of the illness. All contacts are interviewed by phone or in person, and children and adults without adequate immunization are immediately vaccinated.

These diseases are very infectious and spread rapidly. One out of every ten measles cases requires hospitalization and one out of every thousand die. Women who are infected with rubella during pregnancy have a high likelihood of having severely deformed babies.

A measles outbreak was identified in Louisiana in 1995, with seventeen cases identified before disease spread was stopped. The outbreak lasted 37 days. Control of the outbreak required the examination of 35 suspected cases, a total of 3,252 phone calls, the immunization of 2,527 individuals, and active investigations at 28 sites (including day care centers, hospitals, and physicians' offices).

In Louisiana in 1996, 1 case of measles and 1 case of rubella were identified.

## Selected 1996 Results of Infectious Disease Surveillance:

- Hepatitis C cases have steadily increased since 1990.
- AIDS rates continue to increase in Louisiana, moving the state up to 8<sup>th</sup> highest in the U.S. In 1996, the AIDS case rate in the metro Baton Rouge area was listed as the 10<sup>th</sup> highest among major U.S. cities.
- There has been an 82% decrease in syphilis case rates since 1991, but the state syphilis rate is still higher than that specified in the Centers for Disease Control Healthy People 2000 objectives.
- Louisiana's 1996 tuberculosis case rate of 9.6 per 100,000 exceeds the 8.0 per 100,000 national rate, but is similar to rates of neighboring states.
- In 1996, a 70% decrease in animal rabies cases was reported.
- Hepatitis B cases decreased by 14% in 1996, continuing a steady decline since 1987.
- A cluster of five neural tube defects (NTD) occurred in Louisiana in 1996. The NTD rate in three neighboring Louisiana towns was 78.2 per 10,000 live births, compared to 5.7 per 10,000 live births for metropolitan Atlanta.
- Of 382 sexual or needle-sharing partners of HIV infected clients counseled and tested by public health disease investigators, 67 (18%) who didn't know their HIV status were found to be HIV positive.
- In 1996, an Adenovirus Type 7 outbreak occurred in a long-term care facility for children in Louisiana.
   Ten of the children died.
- An outbreak of viral gastroenteritis occurred in 1996 due to consumption of Louisiana oysters. Sewage effluent from an oil rig was implicated as the source of the oyster contamination.

#### 1996 and 1997 Disease Statistics:

Please refer to the *Vaccine Preventable Diseases, STDs, TB*, and *HIV/AIDS* sections in <u>Chapter II: Morbidity</u>.

# C. Sexually Transmitted Disease (STD) and HIV/AIDS Surveillance

Contracting a sexually transmitted disease can have serious consequences. For example, advanced (tertiary) syphilis can produce neurological, cardiovascular, and other terminal disorders, pelvic inflammatory disease, infertility, ectopic pregnancy, blindness, cancer, fetal infant death, birth defects, and mental retardation.

The Department of Health and Hospitals, through the Office of Public Health's *STD Control Program* and the *HIV/AIDS Program*, conducts surveillance to determine the incidence and prevalence of STDs and HIV/AIDS, monitors STD and HIV/AIDS trends, collects data on the location and referral of persons with or suspected of having a STD for examination and early treatment, and conducts partner notification to limit the spread of the diseases.

### 1996 National Rankings:

Nationally, Louisiana has a high ranking among the 50 states with regard to rates of sexually transmitted diseases (STDs) and HIV/AIDS.

- From 1995 to 1996, the state saw improvement in its ranking for syphilis, with a move from 2<sup>nd</sup> to 6<sup>th</sup> highest in the nation.
- Gonorrhea rates, however, moved from 10<sup>th</sup> to 8<sup>th</sup> highest, and chlamydia rates rose from 11<sup>th</sup> to 4<sup>th</sup> highest in the nation. The rise in ranking for gonorrhea and chlamydia reflects an increase in the number of labs included in the state's STD surveillance system. This has resulted in the identification of cases which would not have been identified in the past.
- In 1996, the state ranked 8<sup>th</sup> highest for state AIDS rates, while Baton Rouge and New Orleans ranked 9<sup>th</sup> and 10<sup>th</sup>, respectively, among the nation's cities.

#### 1996 and 1997 Disease Statistics:

Please refer to the STDs and HIV/AIDS sections in Chapter II: Morbidity.

# D. Tuberculosis (TB) Surveillance

The Louisiana Office Of Public Health *TB Control Program* conducts active surveillance for tuberculosis in the state. Regional staff interact with area physicians, hospitals, and laboratories in the course of their duties. All known or suspected cases of tuberculosis are investigated to assure that transmission of tuberculosis is contained.

Currently, TB Control in Louisiana is working with CDC to enhance surveillance activities. Improved methodology is being implemented to facilitate reporting and tracking.

## 1996 and 1997 Disease Statistics:

Please refer to the TB section in Chapter II: Morbidity.

# E. Alcohol & Drug Abuse Program: Intravenous Drug Use Treatment and STD, TB, and HIV/AIDS Screening

The Department of Health and Hospitals *Office of Alcohol and Drug Abuse (OADA)* treats persons with substance abuse problems and provides on-site testing for STDs, TB and HIV for OADA clients.

# **IV Drug Use Treatment**

Due to the great impact of intravenous drug use on the health of the public, treatment of Intravenous Drug Users (IVDU) is a high priority of the OADA. IVDUs are given statewide priority admission, by policy, to all OADA programs and treatment modalities. These programs include outpatient (non-intensive and intensive), detoxification (social and medical), primary inpatient (intensive inpatient and residential), community based programs (halfway houses, three-quarter way houses and therapeutic communities), and special program(s) (criminal justice: Blue Walters).

# STD, TB, and HIV/AIDS Screening

In addition to treatment of substance abuse problems, OADA makes available STD, tuberculosis, and HIV testing to each individual receiving treatment for substance abuse. Testing is offered, either directly or through arrangements with other public or nonprofit private entities, through a Qualified Service Organization Agreement (QSOA) and a Memorandum of Understanding (MOU) between the Office of Public Health and OADA. This system includes the provision of the necessary supplies by the Office of Public Health's *STD Control, TB Control, and HIV/AIDS Programs* for on-site STD, TB, and HIV testing of OADA clients.

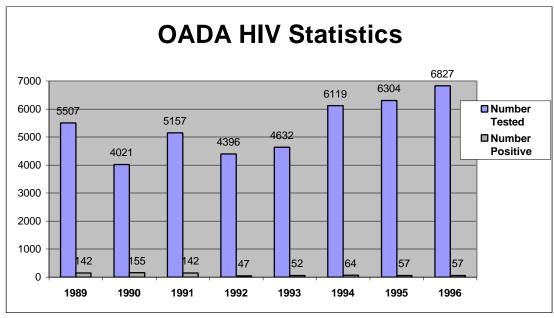
Emphasis is placed on making available within the existing programs early intervention services for HIV in areas of the state that have the greatest need for such services. Ongoing testing and pre and post test counseling is provided. Individuals testing positive are referred to the Office of Public Health outpatient clinics for further evaluation and appropriate testing. OADA also provides ongoing counseling to its clients regarding HIV prevention and treatment, self-help groups, information and referral services, and counseling with partners of HIV positive clients.

The DHH *HIV Program Office* has established outpatient clinics for HIV/AIDS patients in all the regions of the state. These outpatient clinics are located in the Regional Charity Hospitals, except in Shreveport, where the clinic is located at Louisiana State University Medical Center. Additionally, the DHH HIV Program Office has established consortiums in each of the state's nine Administrative Regions. The consortiums advocate treatment services for the HIV/AIDS client. Upon a client being identified as an HIV patient in our system, he or she is referred to the local consortium and/or directly to the Charity Hospitals outpatient clinics, which are under the auspices of the Office of Public Health. Besides referrals to public agencies, clients can be referred to other HIV supportive services that are available in the community. OADA utilizes this referral network to access additional services for substance abuse clients diagnosed with HIV/AIDS. The Office has established a working relationship with the referral entities and is able to monitor the needs of clients who have been referred.

OADA collaborates with the Office Public Health, *HIV/AIDS Services Program* in the provision of crosstraining, pre-post counseling for clients, cooperative agreements, funding requests and other appropriate activities targeting HIV early intervention and AIDS services for substance abusers.

# 1996 Program Statistics:

- OADA Management Information System indicates that there were 4,820 IVDU admissions during SFY 1996 (19 % of our total population). These figures reflect a decline in IVDU admissions to our system from the previous year.
- The Office of Public Health's summary of statistics for calendar year 1996 shows that 6,827 individuals from OADA clinics were tested for HIV. Of this population, less than 1% tested positive for the HIV virus. This figures remains unchanged from the 1995 test results. The following graph illustrates the number of HIV tests administered and the number of positive tests in the OADA population from 1989 to 1996. Overall, there has been a decline in the number of positive tests, while there has been an increase in the number of tests performed.



Source: Louisiana Office of Alcohol and Drug Abuse

# F. Health & Safety Needs Assessment of Children in Day Care Centers in Louisiana

The Maternal & Child Health Section and the Infectious Epidemiology Program of the Office of Public Health initiated a health and safety needs assessment of children in day care centers in 1996 as part of the Child Health Assessment Program. The study was aimed at evaluating the health and safety needs of children in child care centers across the state. Its purpose was identification of problems with the health and/or quality of access to health services currently available via the current child care system, so improvement efforts could be concentrated in those problem areas.

The survey had six main objectives: (1) to identify who provides health care to the children, (2) to assess what services are provided on-site, (3) to assess what health problems are identified by the child care providers, (4) to define what health education issues are/should be addressed, (5) to describe what health services are provided for children with special needs and what factors limit their provision, and (6) to identify what health promotion/disease prevention activities could be provided on-site.

# The survey determined:

- 78% of non-Headstart (federally funded program for low-income or disadvantaged preschoolers) centers did NOT have access to a health consultant.
- Non-Headstart programs were much less likely to provide health services. In non-profit, non-Headstart centers, hearing was provided in 41% of the centers, speech (35%), vision (39%), health check-ups (15%), and dental screening (13%) versus 20%, 23%, 22%, 4%, and 6%, respectively, in for-profit centers.
- 16% of all for-profit child care centers were interested in providing services for children with a wide variety of special health care needs. Lack of staff training and cost were identified as the main limiting factors against providing specialized services.
- Child care center directors provided training on emergency plans (78%), home safety (74%), nutrition habits (7%), hospitalization preparation (9%), and disability awareness (28%).
- Ear infections (5.2%), upper respiratory infections (4.8%), chickenpox (4.1%) and diarrhea (3.0%) were the most frequent disease events reported.
- The average injury rate was 2.9% (range of 1.3 to 5.8%). Injuries caused by other children were the most frequently reported injuries (25%), followed by furniture (18%), and outdoor equipment (9%).
- The single most important factor that determined the health status of the children in these facilities was the educational level of the director. The higher the educational level of the director, the higher the educational level of the employees and the fewer illness and injury events. The injury rate was 11.2% and illness rate was 29% in centers where the director's education was 16 years or less, versus 0.9% and 26% in centers where the directors had 17-19 years of education.

### G. Statewide Child Death Review Panel

The Office of Public Health's *Injury Research and Prevention Section* maintains a database on cases examined by the multidisciplinary, legislatively-mandated <u>Statewide Child Death Review Panel</u>. The Panel is currently charged with examining records for all unexpected deaths of children under age 10 in the state to assure that proper investigation, follow-up and prevention programs are in place.

#### **Reports:**

An annual report of Panel findings is presented to the Legislature and is available to the public through the *Injury and Research Prevention Section*.

# H. Brain and Spinal Cord Injury Registry

Injuries to the central nervous system are one of the most severe types of injury in terms of both human suffering and costs to society. This legislatively-mandated registry collects information from all Louisiana hospitals on the demographics, types, causes, extents, risk factors and outcomes of central nervous system injuries. This information is then used to generate prevention programs. Examples of prevention programs generated from this data include prevention of falls from deer stands, safe tackling practices for high school football players, and recommendations to make junior rodeo riding safer.

# Reports:

OPH's *Injury Research and Prevention Section* produces an annual report, available to the public, based on the data from this registry.

# I. Injury Specific Deaths Database

This database compiles death certificate information on all injury-related deaths in the state for the years 1986 to the present. This information is used to describe patterns in the occurrence of injuries in Louisiana, for both the education of the public and for guidance in the development of prevention programs.

#### **Reports:**

The *Injury Research and Prevention Section* maintains this database and is able to generate specific reports and analyses by cause, location, and a variety of demographic factors for individuals, communities, or agencies.

## J. Burn Injuries

Hospitals are required by law to report severe burn injuries to the *Office of the State Fire Marshal* to assist in the identification of arsonists. In 1997, the *Injury Research and Prevention Section* entered into a partnership with the State Fire Marshall to provide a broader analysis of data that describes patterns of burn injuries in Louisiana.

# K. Louisiana Adolescent Health Initiative

Begun in September of 1995 by the DHH, Office of Public Health, *Family Planning Section*, the <u>Louisiana Adolescent Health Initiative</u> facilitates a coordinated, multi-disciplinary approach to adolescent health care, disease prevention and health promotion in the state. It provides an infrastructure to enable local communities to more effectively and efficiently address adolescent health needs.

The collection of data and dissemination of information is an essential part of the Initiative. Providing information on both adolescent health issues and on current adolescent health activities is a priority. The state public health office serves as a synthesizer and central repository for such information. The use of statewide teen health questionnaires and adolescent focus groups, coupled with the collection of adolescent health statistics, provides parents, communities, politicians and policy makers with a clear picture of adolescent health in Louisiana. With technical assistance from the DHH, Office of Public Health, regional and local communities are able to identify and prioritize teen health needs. OPH provides technical assistance to communities in the design, implementation and evaluation of their community based programs. An important new focus is the use of local and regional surveys to provide more precision and detail on local priority issues.

Currently, there are many state and local projects that emphasize different aspects of adolescent health. Some focus on teenage pregnancy or teen parenting, while others may focus on HIV/AIDS, tobacco control, conflict resolution, cardiovascular health, or on the maintenance of school-based health clinics. The <a href="Louisiana Adolescent Health Initiative">Louisiana Adolescent Health Initiative</a> allows for the planning, development, implementation and evaluation of these activities in a coordinated, collaborative fashion. In addition, it broadens the scope of cooperation to include the DHH Offices of Mental Health and Alcohol and Drug Abuse, the Office of Youth Services, and others. Such team-building efforts are necessary to merge the work of all agencies working with the common goal to ensure health and happiness for Louisiana's youth.

#### Activities to date include:

- Collection of statistical data in the area of adolescent health, including emotional and social indicators for the Louisiana Adolescent Health Data Book
- Producing statistical pamphlets for statewide distribution on the current health status of LA adolescents
- Compiling reports from Orleans Parish Women, Infants, and Children nutrition program (WIC) teen health questionnaires (250 surveys collected to date)
- Planning and coordinating the national General Accounting Office's site visit to Louisiana on Teen Pregnancy Prevention in November 1997
- Planning and coordinating the first annual LA Youth Health Conference in August of 1997
- Coordinating and planning the second annual LA Youth Health Conference that is scheduled for the summer of 1998
- Increasing coordination and networking with both internal DHH, OPH programs, and external agencies involved in public health and social welfare
- Collaborating with other state and national adolescent projects
- Providing technical assistance to community coalitions that are performing comprehensive holistic adolescent activities

## L. Oral Health Assessment

The effects of poor oral health can greatly impact the overall health of an individual. Poor oral health in children can have far-reaching results, including infection, absence from school, and malnutrition. The *Oral Health Program* of the Office of Public Health, *Maternal and Child Health Program*, is charged with monitoring the oral health status of Louisiana's children.

# **Comprehensive Oral Health Needs Assessment**

The Oral Health Program has several current initiatives, one of which is a <u>Comprehensive Oral Health Needs Assessment</u> among Louisiana's children. This needs assessment uses data for successive years, gathered from two sources: survey data collected by the Oral Health Program and Dental Medicaid claims data.

Results: In 1997, information on primary oral health status was collected from a dental survey conducted in eight elementary and high schools with school based health centers. In this survey, only 15.8% among all children examined were caries free, and 5.2% of the 17-18 year old population were caries free. Treatment urgency was determined after the full oral examination was completed: 21.9% of males examined and 18.8% of female students were in need of urgent care. Although a large proportion of the children, 75.2%, could benefit from the application of dental sealants, only 6.2% of all children had any sealants present.

Primary and Secondary analysis of Medicaid dental services is currently being conducted. A two year period of Dental Medicaid claims data currently is being analyzed; the results of this analysis will be incorporated into the Oral Health Needs Assessment activities.

### **Dentists' Attitudes Survey**

A survey of the attitudes held by Louisiana's general and pediatric dentists concerning the <u>Early Periodic Screening</u>, <u>Diagnosis</u>, and <u>Treatment (EPSDT) Dental Medicaid Program</u> was conducted by the Oral Health Program in April 1997. Oral health information about adults in Louisiana was collected through the Office of Public Health Louisiana Behavioral Risk Factor Surveillance System in 1996 and 1997.

*Report:* Preliminary analysis of this survey was reported in the <u>Journal of the Louisiana Dental</u> Association (Winter Issue 1998). The complete analysis will be available in the summer of 1998.

# M. Environmental Epidemiology and Toxicology

The Office of Public Health, Section of Environmental Epidemiology and Toxicology (SEET) oversees and responds to public health needs with regard to environmental health issues. Activities conducted by SEET include environmental health education, epidemiologic and toxicological investigations, toxic site assessments, and chemical fish advisories.

The projects described below are representative of those coordinated by SEET.

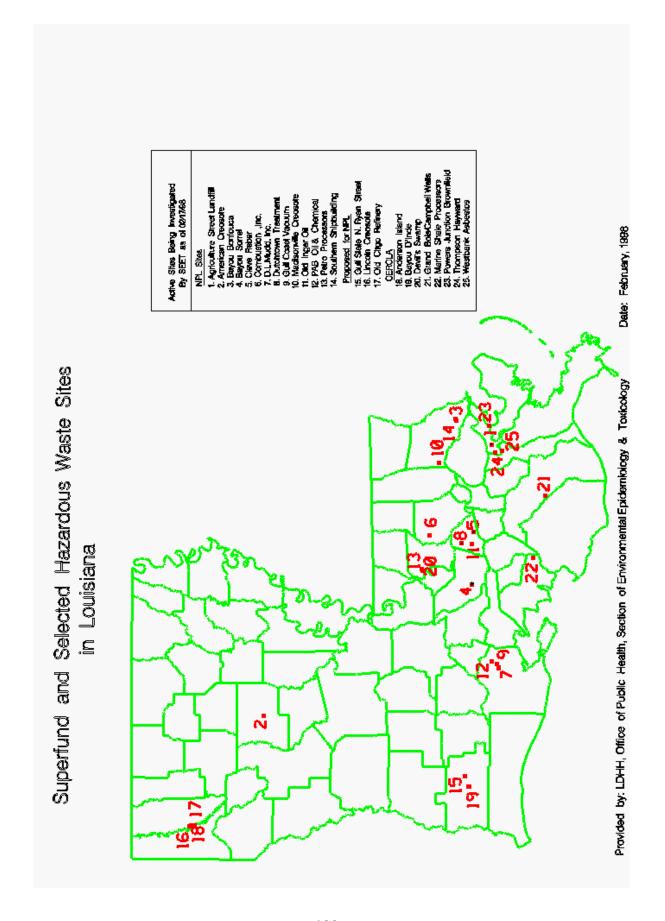
## **Public Health Assessments and Consultations**

Health Assessors complete extensive Public Health Assessments or shorter Health Consultations for Superfund and other hazardous waste sites in Louisiana. The Public Health Assessment is an evaluation of all relevant environmental information, health outcome data, and community concerns around a hazardous waste site. It identifies populations potentially at risk and offers recommendations to mitigate exposures. A Health Consultation is a response to a request for information and provides advice on specific public health issues that could occur as a result of human exposure to hazardous material. Based on the above documents, health studies, environmental remediation, health education, exposure investigations, or further research may be recommended.

There are 600-700 CERCLA (Comprehensive Environmental Responsibility, Compensation, and Liability Act) hazardous waste sites in Louisiana. SEET is evaluating the public health impact of 25 of these sites (see map of sites on the following page). Seven Public Health Assessments or Health Consultations were written in 1997. Details concerning these activities can be obtained from SEET. SEET also: (1) develops fact sheets or other handouts to help inform the local community about health issues around hazardous waste sites; (2) responds to individuals requests for toxicological and medical information; and (3) makes presentations in public meetings and availability sessions around the state.

### **Anderson Island Subdivision**

The Anderson Island subdivision in Shreveport is an example of a site with which SEET is currently involved. In July 1997, citizens contacted the Section with concerns about the subdivision being built over an old refinery. Staff attended a public meeting that summer to answer questions and gather information. In October, a Health Consultation was released that reviewed cancer incidence data for the area. Working with state and federal environmental agencies, SEET is currently reviewing environmental sampling results and will give public health recommendations based on these results in a Health Consultation to be released in the Spring of 1998.



### **Pesticide Exposures**

SEET receives all pesticide exposure cases reported to the Louisiana Department of Agriculture and Forestry. Staff obtain medical records when available, and then review data about each case, including statements, investigator's report, and any sample results. SEET also maintains a statewide pesticide hypersensitivity registry. When all data are reviewed, SEET's medical consultant makes a determination about the potential short and long term health effects in each case, and sends a letter to the complainant with an explanation for this determination, and, when appropriate, a recommendation to ameliorate the situation. Each case is classified as one of the following:

- 1. Confirmed: adverse health effects resulting from a reported pesticide exposure are verified
- 2. **Likely**: adverse health effects resulting from a reported pesticide exposure are likely
- 3. **Possible**: adverse health effects resulting from a reported pesticide exposure are plausible
- 4. **Unlikely**: adverse health effects resulting from a reported pesticide exposure are improbable
- 5. None: adverse health effects resulting from a reported pesticide exposure are ruled out.

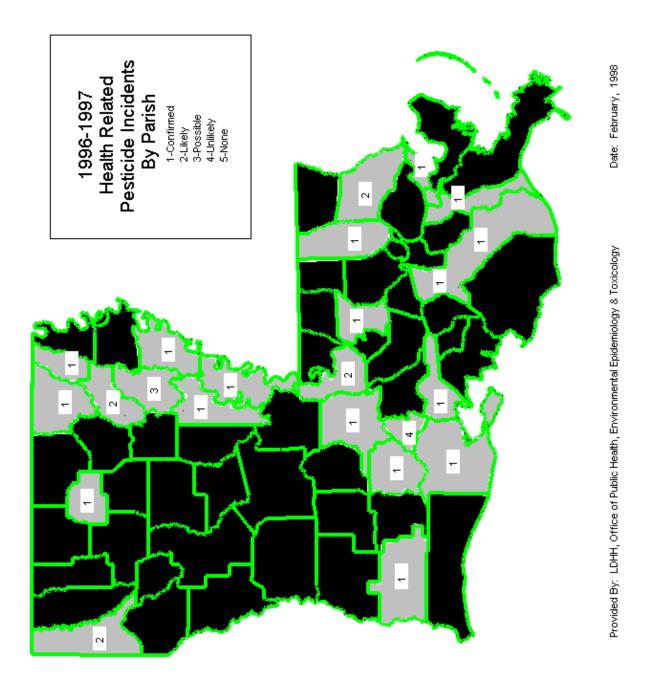
In 1996, a multitude of illegal sales and applications of methyl parathion in Louisiana resulted in the contamination of many homes. SEET staff continue to work to assist exposed families and individuals.

## 1996-97 Pesticide Cases (non-Methyl Parathion)

There were 32 reported pesticide complaints during the period 0ctober 1, 1996 through September 30, 1997. Out of the 27 for which determinations have been made, three (11%) were **unlikely**, 18 (67%) were **possible**, four (15%) were **likely**, and two (7%) were **confirmed**. Complaints were made in 23 parishes, those with two or more being Lafayette (4), Franklin (3), Caddo (2), Pointe Coupee (2), Richland (2), St. Landry (2) and St. Tammany (2) (see Health Related Pesticide Incidents map on the following page).

# **Methyl Parathion**

Using a pre-existing protocol, a multi-agency clean-up process involving the *U.S. Environmental Protection Agency*, the *Agency for Toxic Substances and Disease Registry*, the *Army Corps of Engineers*, the *Louisiana Department of Agriculture and Forestry*, and the *Louisiana Department of Health and Hospitals* began on January 3, 1997. Under this protocol, 1,800 households were environmentally sampled and 583 of these households tested positive. Urine samples were collected from approximately 431 households, and of these, 175 households were renovated. On August 1, 1997 a new national protocol, which included urine monitoring, was implemented and changes were made in the minimum and maximum levels deemed safe. From August 1 to December 31, 1997, 83 homes were environmentally sampled and urine samples were collected on 64 of these households. Of these 64 households, 25 were classified as "No Further Action," 32 required urine monitoring, and seven households were relocated. There have been over 1,200 people who have participated in the voluntary urine analysis program since its implementation in 1997.



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#### **Disease Cluster Response**

When a disease cluster is thought to be related to an environmental chemical cause, SEET provides information on possible chemicals which could cause the disease cluster and comparative rates of the disease at the parish, state and national level.

#### Coteau Childhood Leukemia

Public concern about childhood leukemia in the community of Coteau, Louisiana was brought to the attention of SEET in May 1996. SEET has assessed the occurrence of childhood leukemia in the area of Coteau with the assistance of the *Louisiana Tumor Registry*. It has been determined that the incidence of childhood leukemia in Coteau is unusual, both spatially and temporally.

SEET began a population-based case-control study of childhood leukemia in a four parish area including lberia, Lafayette, St. Martin and Vermilion parishes. These four parishes were selected as the study area to provide a larger number of cases and to increase the probability of including children from neighboring areas who may have spent time in Coteau even though they did not live there.

Cases included in this study are: (1) birth in any of the four parishes and (2) diagnosis of childhood leukemia while residing in any of the four parishes. All cases of leukemia, both ALL (acute lymphocytic leukemia) and ANLL (acute non-lymphocytic leukemia), diagnosed during the time period January 1, 1983 to June 30, 1996 are eligible for inclusion in the study. Cases of children less than 15 years of age with leukemia have been obtained from the Louisiana Tumor Registry and the *Acadiana Tumor Registry*. There were 40 confirmed cases from January 1983 to June 1996 in the four parish area. A 41<sup>st</sup> case, diagnosed in February 1997, has since contacted SEET.

A detailed survey instrument (questionnaire) has been developed by SEET to identify risk factors associated with childhood leukemia. A qualified interviewer has been hired from the Lafayette area to conduct all interviews with cases and controls.

## **Cancer Mortality Trend Analysis**

There has been concern for some time about whether industries along the Mississippi River between Baton Rouge and the Gulf of Mexico contribute to elevated lung cancer rates in the area. The Louisiana Department of Health and Hospitals' Section of Environmental Epidemiology and Toxicology (SEET) is completing a trend analysis of the Lower Mississippi River corridor to provide more accurate information to address this concern. Cancer rates, demographic factors, and industrial development have been tracked over 30 years, from the 1960s to the 1990s.

# **Cancer Mortality**

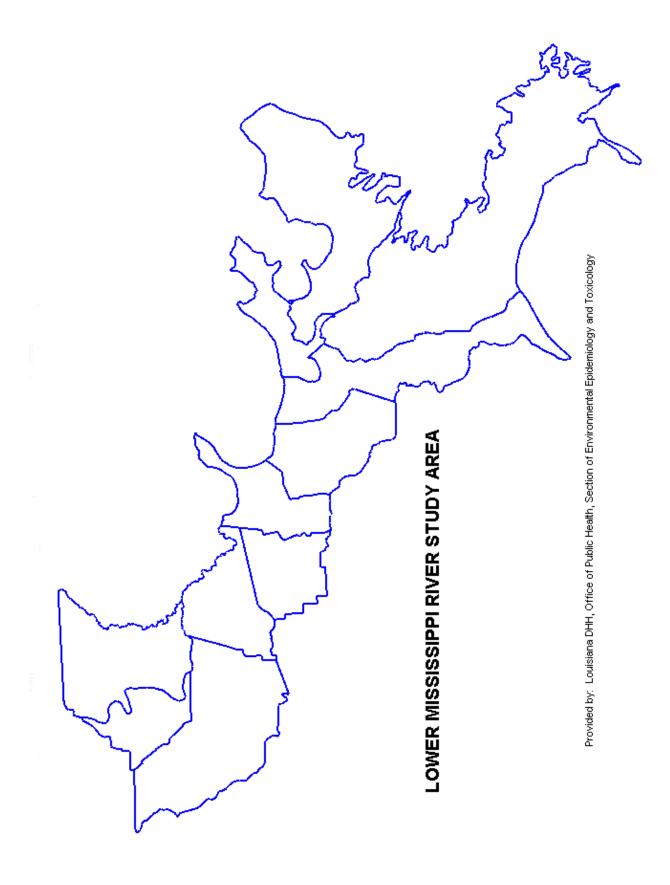
Preliminary analysis of the data reveal that most of the average annual age-adjusted mortality rates (1960-1993) are nearly equal for the urban portion of the study area and the study area as a whole (the Lower Mississippi River corridor). This is expected since the urban area had most of the population base (80%) of the entire eleven parish region (see map of study area following this section). There were no statistically significant excesses or deficits of cancer deaths in the urban area as compared to the entire study area. However, lung cancer death rates for African-American males and Caucasian females in the urban area were higher than, but not significantly different from, the entire region. Most of the average annual age-adjusted mortality rates were nearly equal for the rural region when compared to the entire study area (1960-1993). Also in the rural region, stomach cancer was significantly elevated in African-American males, and lung cancer death rates for Caucasian males were higher than, but not significantly different from, the entire region.

# **Demographics**

According to information obtained for the census years 1960, 1970, 1980 and 1990, more than 80% of the population in the study area has lived in the area since the 1960s, and more than 60% of that population is Caucasian. The African-American population in the study area has declined in rural areas and grown in urban areas. Median family income in the study area increased from \$4,720 in 1960 to \$29,512 in 1990. Since 1970, median family income increased by more than \$10,000.

### **Industrial Mapping**

The industries in the Lower Mississippi River corridor are distributed into twelve clusters (three or more industries in each cluster) spread among seven of the eleven parishes. In the early 1950s there were 15 industries in the corridor; by 1994, there were 92. Manufacturing industries in the area with over ten employees were categorized according to the potential cancer risk they posed. Between 1988 and 1994, the number of industries emitting known human carcinogens dropped from 42 to 36.



# N. Vital Statistics

Vital statistics data provide a body of information which is invaluable for monitoring the health of Louisiana's residents. These data are collected via birth, death, fetal death, abortion, marriage and divorce certificates. Collection and processing of vital statistics information is the responsibility of the *Vital Records Registry* in the Office of Public Health, Division of Health Information.

A large number of health status indicators rely on vital statistics data. These indicators include infant death rates, numbers of low birthweight infants, percentage of mothers lacking adequate prenatal care, teen birth rates, homicide and suicide rates, rates of death from AIDS and motor vehicle injuries, and many others. Vital statistics data are used by both the public and the private sectors to identify health needs in the population and target effective health interventions. Vital statistics health status indicators are also an important component in measuring achievement of Centers for Disease Control Healthy People 2000 objectives.

The role of the *State Center for Health Statistics* in the Division of Health Information is to analyze vital statistics data and distribute findings to government programs, community organizations, universities, and interested members of the general public. The Center accomplishes this through publication of the annual <u>Louisiana Vital Statistics Report</u>, and through response to ad hoc requests for data and information. The Center also is responsible for compilation of information from Department of Health and Hospitals programs to create the legislatively mandated annual <u>Louisiana Health Report Card</u>.

#### 1996 Statistics:

Please refer to Chapter I: Population and Vital Statistics.

## Reports:

The annual <u>Louisiana Vital Statistics Report</u> is available to the public through the *State Center for Health Statistics*. The Center also maintains databases of births, deaths, fetal deaths, abortions, marriages, and divorces, and generates specific reports and analyses by location and demographic factors for individuals, communities, and agencies.

# O. Public Health 9 and Family Planning (PH-9/FP) Project

The Public Health 9 (PH-9) and Family Planning (FP) project, carried out by DHH Office of Public Health *Division of Health Information*, began by exploring the feasibility of replacing the central data entry and billing services, for which OPH has been contracting at a cost of \$870,000 per year, with a more modern system that would reduce costs, and still would provide a higher quality data stream, faster billing and reimbursement, and on-site and central management support systems. The scope of the project was 135 public health clinics, 300,000 patients, 650,000 visits, and 2.6 million services per year.

A major pre-existing effort to modernize the paper forms used by 9 Public Health programs in parish health units (referred to as the PH-9 forms) was just coming to completion in early 1997. These forms were used to capture the information needed for reimbursement of the eligible services provided in the clinics, and for reporting programmatic information required by the program's federal funding agencies.

The resulting new PH-9/FP paper forms are used to collect program data on patients and services in the following OPH programs: *Maternal and Child Health, Children's Special Health Services, Eye Health, Communicative Disorders, Genetic Diseases, Immunizations, Tuberculosis Control, Sexually Transmitted Diseases, and Family Planning.* Each of the programs designed their own forms in order to more accurately collect, maintain, and retrieve clinical and demographic data for funding and public health purposes, resulting in 11 program specific forms, each much more simple than the old combined form to be replaced. Since the new forms required a revised data capture process, transition to the new forms represented an opportunity at the same time to correctly engineer the system to capture data at the point of service (POS) and provide timely clinical and management data to the local and regional managers.

Division of Health Information designed, developed, tested, and deployed an NT 4.0-based Dial-Up Networking (DUN) distributed Access information system, where data entered in the clinics by existing staff who know the client. This data is uploaded and merged into a central database nightly for billing, and yet is immediately available to the local clinic management for production control and morbidity assessment in the clinic population. Clinic personnel were able to enter a full clinic visit record in 25 seconds at the end of the first week of deployment. The application supports electronic billing and posting of remittance advice, and reduced mean reimbursement delay by more than a month.

The application was developed for less than \$20,000 and requires less than 2 full time persons (\$70,000) to operate the central billing, and steady state IS staff time is minimal. A current support contract for \$24,000 for the application will decline in dollar amount in the following years. The \$10,000 communication cost for uploading data will go to zero when the WAN reaches the PHU's in this next year. A data entry operator for the OPH Lab currently provided by the contractor will need to be replaced for approximately \$25,000. As before, other fiscal audit staff remain necessary for quality control, projections, and other analyses. Ideally, fiscal staff should be increased to maximize benefit from the data and such staff may well pay for itself in operational savings.

The new PH-9 hardware, software and communication systems have been deployed statewide but are currently being used in only two of the nine regions, so the previous system and contracted billing services continue to provide for the rest of the state. Region IX has successfully used the new forms and information system since June of 1997. Pending approval from the Revenue Monitoring Unit, the distributed PH-9/FP information system will be fully implemented statewide by June 30, 1998.

IV.	PREVENTIVE	EHEALTH	OUTREA	CH PROGI	RAMS

The Department of Health and Hospitals provides Louisianians with a variety of Preventive Health Outreach Programs targeted to assure the health of its most vulnerable citizens: infants and children, adolescents, women, families, and persons suffering from infectious diseases, substance addictions, and mental impairment. The following programs provide needed health care to thousands of individual Louisiana residents. In doing so, they are essential to the health of the state as a whole.

# Programs Targeting Infants, Children and Adolescents

#### A. Childhood Immunization Initiative – Shots for Tots

The <u>SHOTS FOR TOTS Program</u>, through the *Immunization Program* of the Office of Public Health, was developed to improve immunization levels among infants and toddlers. The program has four major methods to improve children's immunization levels: (1) service delivery; (2) information and education; (3) assessment; and (4) coordination and oversight.

- Service delivery is increased by providing a larger number of towns and cites where immunizations
  can be received, by reducing barriers for families, by providing evening and weekend immunization
  clinics, and by improving communication among providers.
- Information and education is provided to health care providers and to parents. Health care providers
  are informed about the correct use of vaccines and parents are educated about the importance of
  having their children immunized on time.
- Assessment is used to provide feedback to providers about their immunization practices and about the concerns of families using their services.
- Coordination and oversight establish a central point of responsibility to help improve all of the methods listed above.

<u>SHOTS FOR TOTS</u> has improved access to immunizations, decreased cost to families, improved public awareness of the need for immunizations, and educated health care providers about proper immunization practices. The following chart illustrates the effectiveness of the <u>SHOTS FOR TOTS</u> <u>Program</u>. Since its inception in 1992, immunization levels among 2-year-old children receiving care at public health units have increased by over 25 percent.

Immunization Levels Among Two-Year-Old Children Receiving Care at Public Health Units, 1992-1997						
1992	55%					
1993	59%					
1994	64%					
1995	75%					
1996	79%					
1997	81%					

# B. Sudden Infant Death Syndrome (SIDS)

The Department of Health and Hospitals, Office of Public Health, *Sudden Infant Death Syndrome (SIDS) Prevention and Case Management Program* is designed to increase public awareness on the topic of SIDS and to provide education to reduce the risk of SIDS deaths. Educational material on SIDS risk-reduction has been developed for populations at risk. Grief counseling is made available to all families who have experienced the death of an infant due to SIDS.

In addition to public and professional education and grief counseling, standard data is collected on each case with the hope of identifying preventable circumstances which result in SIDS. A program to improve the investigation of unexpected infant deaths through the training and certification of death scene investigators was begun in 1996. Over 87 investigators from coroner offices and police departments have been trained in death scene investigation in cases of unexpected deaths in infants.

# C. Early Intervention Program for Mental Retardation and Developmental Disabilities in Infants

Act 659 of the 1983 Regular Session enables the *Office for Citizens with Developmental Disabilities* (*OCDD*) to provide for a mental retardation and developmental disabilities services system. Through this service system, the OCDD provides infant intervention services, designed for infants zero to 36 months who are developmentally delayed.

Infant intervention services can be provided through either a center-based or a home training program. Services include language stimulation, motor development, socialization and self-help skills, cognitive development, parent training, behavior management and other services appropriate to the infants needs.

Prevention of additional developmental delay is anticipated with infant intervention services. There are 13 contract agencies throughout the state, with a total budget of \$2,721,464, providing infant intervention services to an average 700 infants.

# D. Hearing, Speech, and Vision Program: Sound Start Program for the Early Identification of Hearing Impairment in Infants

Vision problems affect one in 20 preschoolers and one in 4 school age children. More than one in twenty-five preschoolers suffer from some type of communication disorder, i.e., speech, language, and/or hearing impairment. Four out of every 1,000 babies born have a significant hearing loss.

The goal of the *Maternal & Child Health, Hearing, Speech and Vision Program* is to identify these problems in children as early as possible. A child's vision, hearing and language development are the most important skills they will need to be able to learn and develop. Research shows that children who have hearing loss identified at birth and who are successfully enrolled in early intervention programs can reach appropriate developmental levels by the time they begin school. Early intervention has profound lifelong benefits for infants and toddlers with hearing impairment and their families, while containing costs of special education and other services provided by the state.

Office of Public Health staff trains volunteers, teachers and nurses to perform vision and hearing screening in Headstart centers, preschools, day care centers, and public and private schools. Hearing and vision equipment is available for loan to these facilities.

The <u>Sound Start Program</u> under the *Hearing, Speech, and Vision Program* works through each community in the state to assure that every birthing hospital performs hearing screening tests for newborns, as required by law. The program has been implemented without specifically allocated funding, and has enjoyed phenomenal success, with the community involvement of professionals, physicians, hospital staff, education personnel, civic and charity organizations, parents and the Deaf community.

Out of 73 birthing hospitals in Louisiana, all comply with the requirements of the law except for 4 hospitals with exemptions. The number of hospitals unable to comply with the law has steadily decreased from 14 in 1994, with the help of Regional Task Forces, local civic groups and charities who have donated equipment and assisted hospitals to find resources. In addition, 30 hospitals now voluntarily perform screening on every birth at their facility, going beyond the requirements of the law. Approximately 43% of the children born in Louisiana receive a hearing screening before they are discharged from the hospital.

Louisiana has received national recognition for its newborn hearing screening program. It is among the top 4 states in the country in the number of hospitals providing universal hearing screening. The average age of identification of hearing loss across the United States is 30 to 36 months. Since the beginning of the <u>Sound Start Program</u> in 1994, the average age for children identified through this program has remained below 3 months of age.

# E. Children's Special Health Services

Children's Special Health Services (CSHS) is a program that provides services for eligible children and families with serious disabilities which significantly limit major life activities. These children have complex medical conditions which may be rare, severe, or disabling and require pediatric subspecialty services on an on-going basis.

Some of the products and services provided by the *Children's Special Health Services* program are medications, durable medical equipment, home health care, physical therapy, hospital care, parent training, and case management to coordinate primary and specialty services. There are nine regional CSHS clinics throughout the State of Louisiana, which together served 9,319 children in 1997 and handled a volume of 23,039 clinic visits.

## F. SAFE KIDS Coalition

The DHH, Office of Public Health, *Injury Research and Prevention Section* supports ongoing community-based injury prevention programs. One of these is the <u>SAFE KIDS Coalition</u>, which conducts prevention activities for unintentional injuries in children.

At the state level, the <u>SAFE KIDS Coalition</u> works to inform the public that unintentional injuries are the leading cause of death for children under age 14. The Coalition also works to organize and promote policies and programs to prevent childhood injury. At the community level, 10 local chapters sponsor injury prevention education activities for community members.

Examples of these injury prevention education activities include hands-on car seat safety clinics, where trained specialists check for proper car seat installation and educate parents how to correctly use car seats, and promotion of the use of bike helmets through reminder tags that are hung on bicycle

handlebars. Other examples of educational programs available through <u>SAFE KIDS</u> include smoke detector use, pedestrian safety, and toy safety.

# G. Child Care Health Consultant Program

The American Academy of Pediatrics/American Public Health Association recommends that each child care facility should utilize the services of a health consultant to provide ongoing assistance in the area of health. Louisiana was one of the first states to institute such a program.

The *Maternal and Child Health Program* of the Office of Public Health coordinates the activities of the Child Care Health Consultant Program. By combining professional health experience with knowledge and training in child care, consultants work to support, assist, and problem solve with child care providers in order to improve the safety and quality of child care. Consultants serve as a source of education, guidance, and support to child care facilities; provide technical assistance; act as health resource and referral persons; and provide access to health care information. This program also has the advantage of bringing together a multi-disciplinary network of both public and private health professionals from a variety of settings to address local community needs.

To date, there are 193 health professionals who have been trained and are certified by the DHH, Office of Public Health and the Department of Social Services, Bureau of Licensing. More than 12,000 child care providers have received some health and/or safety training.

# H. Prevent Abuse and Neglect through Dental Awareness (P.A.N.D.A.)

The <u>P.A.N.D.A.</u> (Prevent Abuse and Neglect through Dental Awareness) program was recently formed through the efforts of the *Oral Health Program* in the Office of Public Health. The <u>P.A.N.D.A.</u> coalition is maintained by community members and is chaired by the president of the Louisiana Chapter of the Academy of Pediatric Dentistry. This program aims to standardize the level of training and education of dental care professionals, and to provide to dentists and hygienists throughout the state additional information which will assist them in the detection and reporting of suspected child abuse and neglect.

# I. Child Health Program

The <u>Child Health Program</u>, from the *Maternal and Child Health Program* of the Office of Public Health, is a program which offers preventive health services to infants and children who are unable to access such services because of geographic or financial barriers or lack of providers.

This program provides periodic health appointments, which can involve a history and physical examination; immunizations; assessment of growth; assessment of developmental status; laboratory screening for PKU, congenital hypothyroidism, sickle cell disease, anemia, urinary tract problems, and lead poisoning; screening for vision, hearing or speech problems; and parental counseling and education. Nutritionist and social services are available in addition to medical and nursing services.

In 1996, 149,146 infants, children, and adolescents were seen in a total of 250,836 visits. Approximately 40% of the children seen were uninsured by either Medicaid or private insurance.

#### J. Adolescent School Health Initiative

Pursuant to a legislative request, the DHH, Office of Public Health (OPH) conducted a study in 1990 which concluded that the causes of adolescent deaths and illnesses could be reduced or prevented through greater adolescent health education and improved teen access to primary/preventive health care and professional counseling. Therefore, in 1991 the Louisiana State Legislature created the <a href="Adolescent School Health Initiative">Adolescent School Health Initiative</a> to facilitate the development of comprehensive health centers in public middle and senior high schools.

The <u>School Based Health Care Program</u>, officially known as the <u>Adolescent School Health Initiative</u>, is directed by the DHH, Office of Public Health *Maternal and Child Health Program*. School Based Health Centers (SBHC) are an integral part of the <u>State's Comprehensive School Health Program</u>, which also encompasses education, school environment, nutrition, physical fitness, and parent and community involvement.

Sources of funding for the School-Based Health Centers (SBHCs) include OPH State General Fund, Maternal and Child Health Block Grant, Robert Wood Johnson *Making the Grade*, local in-kind contributions, and Medicaid reimbursement.

School Based Health Centers are established by a sponsoring agency (the grantee), which is responsible for management of the health center project. Hospitals, medical schools, health departments, youth-serving agencies, community organizations, or school systems may be a sponsoring agency. Each SBHC's staff includes a licensed physician, a nurse or nurse practitioner, a mental health counselor, a clinic administrator, and support staff, who all work in collaboration with the counselors, social workers, psychologists, and speech, physical and occupational therapists on school campuses. Services provided include preventive health care, medical screenings, sports and employment physicals, treatment for common simple illnesses, referral and follow-up for serious illnesses and emergencies, mental health counseling, immunizations, and preventive services for high-risk conditions such as pregnancy, sexually transmitted disease, drug use, alcohol abuse, violence, and injuries.

In the 1996-97 academic year, 23 School-Based Health Centers were operational in 13 parishes, providing services to students at 47 schools. By the end of the 1997-98 school year, four new full-time and four part-time sites in 2 additional parishes are expected to open. Many sites have expanded services to primary and elementary feeder schools. A total of 37 Louisiana parishes in all nine state regions have thus far participated in SBHC development.

In the 1996-97 school year, 18,402 students received services, and there were 101,792 visits to the centers.

# **Programs Targeting Women and Children**

# K. Louisiana Pregnancy Risk Assessment Monitoring System (LaPRAMS)

PRAMS is part of the Centers for Disease Control and Prevention (CDC) initiative to identify risk factors that may cause infant mortality and low birth weight. This new effort will provide the first and only ongoing, population-based surveillance system designed to identify and monitor selected maternal behaviors, occurring before and during pregnancy and during the child's early infancy, in a stratified random sample of all Louisiana mothers delivering a live birth.

PRAMS was initiated by the CDC to help state health departments establish and maintain an epidemiologic surveillance system of selected maternal behaviors. It was designed to supplement data from vital records and to generate data for planning and assessing perinatal health programs in each participating state. Findings from PRAMS are to be used to enhance our understanding of maternal behaviors and the relationship between these behaviors and adverse pregnancy outcomes, and aid in the development and assessment of programs designed to identify high-risk pregnancy and reduce adverse pregnancy outcomes.

In March of 1997 the Louisiana Department of Health and Hospitals (DHH), Office of Public Health, *Maternal and Child Health* and *Family Planning Programs*, in cooperation with the CDC, joined 17 other states and began participation in the national PRAMS project. After a short start up phase, LaPRAMS began data collection in October of 1997. Data analysis will begin after 12 months of data have been collected. Data will be available from the LaPRAMS project office and will also be distributed to various organizations and agencies via newsletters and annual reports. Data from this new surveillance system will be presented in next year's health report card.

# L. Womens' Preventive Health Program (WPHP)

The Womens' Preventive Health Program (WPHP) is designed to improve longevity and the quality of life for women in Louisiana by reducing morbidity and mortality due to preventable causes. The program's mission is accomplished via the following activities:

- Screening for medical conditions which can be effectively treated, including breast cancer, cervical cancer, hypertension, obesity, and colon cancer
- Health guidance/counseling to positively influence health behaviors known to be associated with poor health outcomes.

The WPHP aims to ensure that women have access to services that have been shown to be effective in preventing disease and that have been recommended by the U.S. Public Health Services Task Force on Prevention. The WPHP provides preventive services only; women who have an established disease requiring treatment and those with signs and symptoms of disease are referred to their personal physician or to a state hospital. Eligibility for specific screening services are based on age, risk factors, and economic status. An integral component of the program is the collection of data regarding risk factors, screening, and screening results to assure that women who need treatment reach a treatment provider.

The WPHP is working through public and private partnerships with community groups and other health providers to provide services to women.

# **Programs Targeting Families**

# M. Healthy Families – Home Visitation Program

The *Maternal and Child Health Program* of the Office of Public Health has undertaken home visitation programs to impact Louisiana's high rates of infant mortality, low birth weight, and child maltreatment. Currently there are five home visiting programs that follow the <u>Healthy Families Program</u> developed in Hawaii, which utilizes paraprofessional home visitors. This model seeks to prevent child abuse and neglect by focusing interventions on promoting child growth and development; modeling and fostering positive parenting skills and parent-child interactions; assuring provision of needed health care; and developing support systems for families.

Additional funding is needed to increase home visiting by public health nurses to high-risk families. Nurses educate families with a focus on health, parenting, school readiness, and home safety, in addition to providing social support and serving as a link to needed community services. Scientific research has evaluated over twenty years of <a href="Nurse Home Visiting Programs">Nurse Home Visiting Programs</a> and has found that these programs work to improve outcomes of pregnancy, improve child health and development, and reduce child abuse and injuries. Nurse home visiting also has been shown to improve the economic health of families by reducing their reliance on public assistance and increasing their participation in the workforce.

# N. Public Campaign for Parenting Education & Child Abuse Prevention

The Louisiana Council on Child Abuse (LCCA), in conjunction with the DHH, Office of Public Health, is in the third year of a statewide campaign designed to reach parents with educational messages about parenting and to encourage the use of a toll-free, informational, support and referral resource for families: LCCA's HELPLINE (800-348-KIDS). Campaign themes have addressed positive communication, positive discipline, and stress prevention for parents. Calls to the HELPLINE have increased by 65% compared to pre-campaign totals.

In order to emphasize these educational topics and to conduct training sessions in their communities, a volunteer <u>Speakers Bureau</u> has been established in major cities throughout the state. These trained volunteers include representatives from the *Office of Community Services*, law enforcement, the media and health care. Last year over 3,000 individuals were reached through the Speakers Bureau.

In addition, the *Maternal and Child Health Program* (MCH) of the Office of Public Health has undertaken a statewide effort to train all public health nurses and public health social workers in <u>Bright Futures</u>, a nationally recognized set of guidelines for child health supervision. The curriculum of <u>Bright Futures</u> is designed to promote and improve the health, education, and well-being of children, adolescents, families and communities.

Furthermore, in a cooperative effort between the *MCH* and *Women, Infants, and Children (WIC) Nutrition Program*, new <u>Parenting Education Cards</u> have been produced. These cards offer ideas for parents on how to deal with the difficult aspects of parenting by using actual quotes from almost 800 Louisiana parents who were surveyed. These cards will be available to all parents visiting the public health units, and to private community resources which request provision of the cards to their offices.

# O. Family Support Program

The Office for Citizens with Developmental Disabilities (OCDD) provides funding through the Family Support Program for crisis intervention. These funds are used to meet the short-term, emergency needs of individuals with developmental disabilities and to stabilize crisis/life-threatening situations which occur in the lives of OCDD eligible individuals, in an effort to prevent gaps in service delivery.

Examples of allowable services include: initial assessment, medical supplies, and professional services, including services rendered by doctors, dentists, interpreters, etc; personal care attendants; and personal client needs. Currently, there are 12 contracts, totaling \$168,100, for crisis intervention services statewide.

# **Programs Targeting Infectious Diseases**

# P. Tuberculosis (TB) Prevention and Outreach

During a recent National Tuberculosis (TB) Controllers Workshop, Kenneth Castro M.D., Director of the Division of TB Elimination at CDC, stated, "the United States is back on track towards the elimination of TB. However, the national trend masks areas of ongoing concern, in particular sporadic outbreaks of drug resistant disease, high incidence 'pockets of infection', the introduction of disease among foreign-born persons, and disturbing signs of possible renewed complacency on the part of the public, the body politic, and some segments of the health community."

The Department of Health and Hospitals, through the Office of Public Health's *TB Control Section*, addresses these areas of concern by monitoring the treatment of reported cases of TB. Disease Intervention Specialist (DIS) staff routinely support this effort through the provision of <u>Directly Observed Therapy (DOT)</u> - a service provided to ensure compliance with and completion of treatment for all patients, public or private. DIS staff also investigate each case of TB to assure timely identification and evaluation of contacts to TB.

Of those patients who have been designated "closed," 96% completed therapy in 1996 as compared to the 93% completing therapy among "closed" cases in 1995. This increase was due, in part, to both the intense DOT efforts of DIS staff and to the utilization of incentives and enablers.

# Q. Sexually Transmitted Disease (STD) and HIV/AIDS Prevention Programs

The Department of Health & Hospitals, Office of Public Health, aims to prevent the spread of STDs and HIV/AIDS through a variety of methods, including prevention education; HIV counseling, testing, referral and partner notification; STD treatment and control, including syphilis partner notification; peer programs; street and community outreach in selected zip codes areas; and statewide condom distribution via businesses in communities with high rates of sexually transmitted diseases and HIV/AIDS.

STD control is a labor intensive task, relying on the rapid location of a person's sexual partners in the community to halt further spread of the disease. To prevent the spread of disease, the *STD Control Program* conducts four basic activities:

- Prevention activities education and provision of information to patients and the general public about STDs and the use of condoms
- Clinical services testing, diagnosis and treatment of patients seen in the clinics
- Epidemiology surveillance, location and referral of persons suspected of having an STD, for examination and early treatment,
- Targeted screening as a mechanism to discover infections in certain populations and determine disease prevalence.

In order to reach people who have the highest risk of infection, the *STD Control Program* works with a number of other health-related programs, including *Maternal and Child Health, Family Planning*, correctional institutions, substance abuse centers and other facilities where STDs may be prevalent. Collaboration with these programs and efforts of STD field personnel resulted in the screening of over 200,000 people for STDs in 1997.

HIV/AIDS prevention activities and target populations are determined by the statewide *HIV Community Planning Group*, whose membership ranges from public health and social service professionals to HIV-infected individuals and those at risk for acquiring HIV.

Currently, the Office of Public Health *HIV/AIDS Program* provides support and technical assistance to 22 community-based organizations (CBOs) that target high risk populations across the state. HIV antibody testing and counseling takes place in over 360 sites statewide, including public heath units, drug treatment centers, and CBOs. In 1996, over 12,400 HIV antibody tests were conducted in public prenatal clinics across the state. In addition, a referral tracking system has been developed for pregnant and postpartum HIV-infected women and their infants.

In 1997, the Statewide HIV/AIDS Hotline received over 9,500 calls requesting information regarding HIV/AIDS, STDs, and referrals. Furthermore, the Office of Public Health distributed nearly 500,000 HIV/AIDS and STD prevention education materials to parish health units, CBOs, and other agencies.

# R. STD, TB, and HIV/AIDS Screening through the Alcohol & Drug Abuse Program

The Office of Alcohol & Drug Abuse (OADA) continues to offer outreach services to Intravenous Drug Users (IVDUs) statewide, using the Indigenous, Behavioral, and/or other outreach models. Ongoing outreach efforts involve networking with other agencies to provide access into the local communities. A variety of community sites are used, and include United Way, Alcoholics Anonymous/Narcotics Anonymous groups, businesses, mental health clinics, health clinics, charity hospitals, correctional facilities and jails. Activities include education, prevention, condom distribution, clean needle demonstrations, medical evaluations, and referrals for treatment.

OADA maintains an on-going campaign to educate citizens about the proper use of condoms, and distribution of condoms to adults is undertaken in all regions. Information is distributed in the areas of education, testing, safe sex, and disease treatment. An on-going task force, consisting of representatives from the Office of Public Health, Office of HIV Control, Office for Citizens with Developmental Disabilities and the Office of Alcohol and Drug Abuse, has been established to address infectious diseases and to coordinate training and education of staff. The task force meets annually.

# Programs Targeting Substance Abuse, Violence, and Mental Health

# S. Alcohol and Drug Abuse Prevention

The *Division of Prevention Services, Office of Alcohol and Drug Abuse (OADA)*, *Department of Health and Hospitals* is responsible for administering alcohol, tobacco and other drug (ATOD) services. There are ten (10) regional prevention offices responsible for coordinating, implementing, and promoting ATOD prevention efforts. All services provided on the regional level are outreach based. ATOD services are provided to individuals, families, schools, communities, policy makers, and other interested groups/programs.

There are currently 44 contractual prevention programs funded through *OADA*. The scope of these contracts vary under the six (6) federal primary prevention categories, which are: Information Dissemination, Education, Alternative Activities, Community based Process, Environmental Initiatives, and Identification and Referral. *OADA* also funds ten (10) youth tobacco prevention/community coalition development contracts. These contracts will address the sale of tobacco products to persons under the age of 18. In December of 1996 the noncompliance rate for tobacco sales to minors was 75%; in August 1997 the noncompliance rate was 39%.

The Office of Alcohol and Drug Abuse, Division of Prevention Services is also a participating member of the statewide coalition which received a Robert Wood Johnson Grant to Prevent Underage Drinking. The \$849,000 grant is a four year initiative that will address the environmental issues that affect underage alcohol consumption.

The 1995 <u>Louisiana Youth Risk Behavior Survey (YRBS)</u> sponsored by the *Louisiana Department of Education* showed that of the students who participated in the survey, 74% had tried cigarette smoking. Thirty-six percent (36%) of the respondents reported that they had smoked one or more cigarettes in the past 30 days. Forty-one percent (41%) of the youths reported having their first drink of alcohol, other

than a few sips, before age 13. In fiscal year 97/98, *OADA* will conduct a baseline study to determine what the noncompliance rate is for alcohol sales to minors.

In Fiscal Year 96/97, approximately 279,605 citizens of Louisiana received one or more of the prevention service types listed above. These efforts and other coordinated agency efforts are focused at increasing the age of onset of first use of legal substances and deterring any use of illegal substances by the youth of Louisiana.

#### T. Violence Prevention

The <u>Violence Prevention Task Force</u>, of the Office of Public Health, *Injury Research and Prevention Section*, focuses on organizing communities around violence prevention. To date there are 10 local violence prevention coalitions around the state. Members of local coalitions are participants in the state Task Force, along with public and private, state and community-based organization representatives.

The Task Force is available to assist local groups in understanding the problem of violence in their community and evaluating the effectiveness of violence prevention programs. It has organized a statewide speakers bureau, and publishes a quarterly newsletter and an annual <u>Violence Prevention and Victim Support Resource Directory</u>.

## U. Suicide Assessment

Mental Health professionals conduct a suicide assessment of any consumer who presents to the system with emotional or behavioral problems, or with symptoms of severe mental illness. Additionally, all paraprofessionals who work with the mentally ill client are trained in the mental health assessment of potential suicide. These assessments include current ideations of self-harm, plans for self-harm, and whether the consumer has the means to harm him/herself. Immediate steps are taken to protect that individual when indicated by the mental health assessment of suicide potential. Additionally, the assessment includes past history of suicidal ideation, an assessment of the severity of previous attempts, and the emotional and environmental factors surrounding previous suicidal issues for the consumer.

The Office of Mental Health provides a comprehensive crisis intervention program throughout the State for all citizens who may experience thoughts of suicide, as well as other signs and symptoms of a mental health crisis. This system includes crisis phone lines with 1-800 numbers, a Single Point of Entry system for those who need face-to-face evaluation, hospital diversionary programs (such as respite), or acute hospitalization.

## V. Programs of the Office of Mental Health

The goal and result of the *Office of Mental Health* programs described below is a decrease in inpatient hospitalizations for the consumer, which enables treatment in the least restrictive environment. This decreases the cost in financial terms to the consumer and the State, and in emotional terms to the family and the consumer. The consumers are provided services and are carefully monitored in their own environments, and decompensation and rehospitalization are reduced.

### The Children's Assertive Community Treatment - Lafourche Parish

This program selects 10-13 year olds with at least two previous psychiatric hospitalizations. The purpose is to break the cycle of psychiatric institutionalization through an aggressive, skill-based, wrap-around approach to child and family. Plans are to adapt the program to also serve children who have not yet been hospitalized but who are at imminent risk of out-of-home care.

#### **Evolutions**

Greenwell Springs Hospital has implemented a partial hospitalization program for adolescents who are experiencing emotional and behavioral problems and do not require inpatient hospitalization. The program serves as an alternative to inpatient treatment and also facilitates the transition from inpatient to out-patient care. Intensive therapeutic interventions assist the adolescents to find more effective ways of functioning in the home, school, and community.

# St. Charles Assertive Treatment (SCAT) Clinic with No Walls

This program is a community-based mental health treatment initiative, created in 1993 in response to a need for enhancing service delivery in rural communities and improving the overall quality of life for individuals with severe and persistent mental illnesses. The goal is to prevent hospital recidivism and to allow the client to sustain a high quality of life in the community.

The program is accessible to consumers and their families 24 hours a day for crisis intervention. Treatment is provided by a multi-disciplinary team of professionals and paraprofessionals. Services include all mental health treatment (i.e., psychiatric evaluations; medication monitoring; individual, group, and family therapy; community education regarding mental illness; and social skills training in basic needs).

## **Project Life**

The supported living program, Project Life, utilizes an assertive community treatment model to assist persons with very severe mental health disabilities to live in the community. All persons have been hospitalized at least once in the nine months prior to acceptance into the program, or have experienced multiple hospitalizations within the year preceding admission into the program. Services include housing supports, case management, vocational services, and psychiatric rehabilitation services. Consumers, called community trainers, provide skills training and case management.

# Acute Psychiatric Unit – Washington St. Tammany Parish Continuity of Care

This program provides a mechanism for the discharged, high-risk patient to return to the home environment and continue to maintain stabilization through medication compliance, community support, family education, and reinforcement of individual treatment goals. Patients are selected who have high risk indicators of relapse, such as chronic mental illness and history of previous hospitalizations. Assessments are made during home visits focusing on the patient's general adjustment back to the community. Hospital treatment staff involved in the program are available to the patient and/or family should the need arise.

# Medical Center of Louisiana New Orleans (MCLNO) Mental Health Services:

### **Partial Hospitalization Program**

This program provides a comprehensive range of integrated clinical, rehabilitative, and related services to individuals with severe and persistent psychiatric disabilities who live in the Greater New Orleans area. Family participation is encouraged. If a program member presents to the Psychiatric Triage Unit with a crisis, the <a href="Partial Hospitalization Program">Program</a> staff members are notified and often are able to intervene with the patient to prevent hospitalization.

## Assertive Outreach – Rapid Response Team

This team works with the chronically mentally ill population, using non-traditional methods to reach those who have not been able to benefit from traditional mental health centers and hospitals. The team has pager coverage to provide 24-hour service for their patients. If a participant presents to the Psychiatric Triage Unit at MCLNO, the team member attempts to intervene and avoid further hospitalization. The close contact with the patients allows the team to monitor medication compliance, observe for early signs of decompensation, and intervene as appropriate.

# Programs Targeting Environmental Health

# W. Community Water Fluoridation

Currently, 54.9% of the population served by public water systems are serviced by optimally fluoridated water systems. Renewed effort has been undertaken toward reaching the Centers for Disease Control Healthy People 2000 goal of optimally fluoridating 75% of the population's water supply.

Community water fluoridation efforts have been reestablished with recent legislation, ensuring a stable Office of Public Health Fluoridation Program. The program will oversee monitoring and evaluation of current systems, provide training and assist in promotional activities, together with the *Oral Health* and *Environmental Health Programs* of the Office of Public Health and the newly established *Fluoridation Advisory Board*. This board will function to secure additional resources needed to implement fluoridation systems created as a result of promotional activities.

Thus far, the parish of Plaquemines and the town of Amite, Louisiana have recently passed council ordinance to implement community water fluoridation with the potential to reach an additional 31,000 Louisiana residents.

#### X. Environmental Health Advisories

The Louisiana Department of Health and Hospitals Section of Environmental Epidemiology and Toxicology (SEET) issues fish consumption advisories in consultation with state environmental agencies when chemicals or heavy metals in sport fish reach levels that could potentially harm the public. Methyl mercury, a metal compound sometimes found in fish, can cause birth defects and neurological problems when present at high levels.

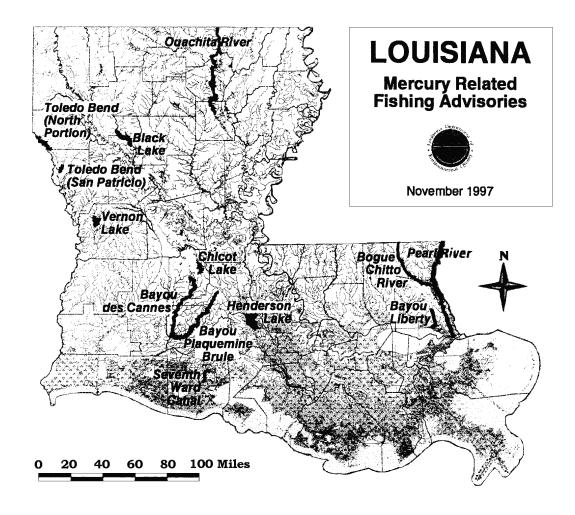
#### **Mercury in Fish**

SEET works with the Louisiana Department of Environmental Quality (LDEQ) to assess the extent of mercury contamination in fish. LDEQ collects and samples fish from water bodies that are selected based on their pH, usage and SEET recommendations. SEET's Health Advisor then coordinates a risk analysis, and, if warranted, the State Health Officer issues a fish consumption advisory for specific species of fish. Of over 100 water bodies tested to date, fourteen health advisories for fish containing mercury have been issued. These advisories cover 12 freshwater water bodies in or traversing 15 parishes (see map on following page). An advisory on king mackerel in the Gulf of Mexico also exists.

#### **Methyl Blood Screening**

The presence of methyl mercury in fish tissues is a growing state and national issue. In 1997, the Louisiana legislature provided funding to test for mercury in the blood of Louisiana citizens. These blood screenings were offered in 13 parishes at no charge for a limited time during the first week of March, 1998. Clients completed a two page questionnaire about themselves and the amount and type of their fish consumption. In conjunction with the testing, *SEET* has initiated an informational campaign about methyl mercury, targeting pediatricians, family physicians, obstetrician/gynecologists, commercial fishermen, and charter boat captains. Regional press releases were sent out at the time of the testing.

Results of the blood analysis will be available later in the year. The report will include concentrations of mercury in the blood of the clients, with correlations to age, gender, income, educational level, amount and frequency of fish consumed, and species and source of fish consumption.



The twelve freshwater bodies labeled on this map are included in the State Health Officer's fishing advisory for fish containing mercury.

Source: Section of Environmental Epidemiology and Toxicology

## Y. Environmental Health Education

The Louisiana Department of Health and Hospitals' *Section of Environmental Epidemiology and Toxicology (SEET)* has conducted <u>Health Professional Education</u> for the past five years as part of its educational activities. Overall, the purpose of education for health professionals is to provide information that enables these individuals to practice preventative environmental health care. *SEET* targets physicians and other health professionals near Superfund and proposed-Superfund sites to receive case studies from the *Agency for Toxic Substances and Disease Registry (ATSDR)* on chemicals of concern. Information provided focuses on site contaminants, health effects from exposure, and clinical descriptions of the diagnosis and management of cases of chemical exposure.

Since 1996, SEET has disseminated ATSDR (Agency for Toxic Substances and Disease Registry) Case Studies to over 4,000 Louisiana physicians in 20 parishes. The most recent mail-out occurred in February of 1998 when SEET distributed ATSDR Case Studies entitled "Mercury Toxicity" and "Taking Exposure History" to 750 physicians in ten parishes.

V.	LOUISIAN	A STATE	HEALTH	CARE S	YSTEM

# A. Analysis Of Health Care In Louisiana<sup>1</sup>

Several national publications, such as U.S. News and World Report and Time Magazine, have reported that Louisiana has higher death rates than the national rates because of deaths from cancer, cerebrovascular related deaths, infant mortality, and diabetes. A 1996 national report by ReliaStar Financial, formerly Northwestern National Life, says, "Louisiana is the most unhealthy state in the nation." The report is based on 17 criteria, including disease rate, access to health care, occupational safety and disability, crime rate, motor vehicle death rate and other mortality rates and data from 1995. Louisiana's ranking as the most unhealthy state stems from its "high prevalence of smoking, high rate of violent crime, low high school graduation rate, high unemployment, low access to primary care, high worker disability status, high rate of heart disease, high rate of overall mortality and a high rate of premature death," the report says.

A major explanation for Louisiana's poor health status is the lack of access to routine and preventive health care. In Health Care State Rankings for 1997<sup>2</sup>, Louisiana ranked 48<sup>th</sup>, among the worst in the nation in health indicators. According to this report, Louisiana was ranked first in the nation for the percent of births by cesarean section, and second for both the number (per 100,000) of persons with diabetes and the estimated 1997 age-adjusted death rate (per 100,000) from cancer. Louisiana's percentage of children aged 19 months to 35 months who have received all scheduled immunizations is 76% which, while comparable to the national percentage (75%), ranks Louisiana 21<sup>st</sup> in the nation. Louisiana's performance in terms of prenatal care is dismal, with a second place ranking in the percentage of low birth weight babies, the second highest neonatal death rate in the nation and 12<sup>th</sup> highest infant mortality rate. Louisiana ranks 13<sup>th</sup> for women receiving late or no prenatal care and 32<sup>nd</sup> for African-American women receiving prenatal care in the first trimester. Similarly, Louisiana's breast cancer and cervical cancer rates for African-American women exceed the national rates for All women. The rate for White women is generally below the national norm.

It should be noted that Louisiana's high rate of poverty (highest in the nation and 50% higher than the Southern average) is also a contributing factor to lower health outcomes, despite increased public health expenditures. Public health expenditures are higher due to Louisiana's fourth place in percent of uninsured individuals (20.5% uninsured) and the concomitant dependence of these uninsured individuals on the public health system, which includes a statewide charity hospital system that is unique in the nation.

Accessibility and availability of primary care practitioners (family practice, general practice, internal medicine, pediatrics, and obstetrics/gynecology) also pose a significant problem in the delivery of health care in the state. As of December 17, 1997, the Bureau of Health Care Delivery and Assistance recognizes 75 primary care shortage areas in the state: 29 geographic areas, 18 population groups, 20 sub-areas, and 8 facilities. Of the 29 whole-parish designations, 27 are non-metropolitan parishes.

In lieu of a primary care physician, many people seek care at hospital emergency rooms. In 1995, Louisiana ranked 14<sup>th</sup> highest nationally in the number of emergency outpatient visits to hospitals. There were 2,349,511 emergency outpatient visits to hospitals in Louisiana, as compared to the state average of 1,998,222 visits.

<sup>1</sup> Health Resources Management Program, Office of Public Health, 1998.

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<sup>&</sup>lt;sup>2</sup> Morgan, K.O. and Morgan, S. (Eds.). 1997. <u>Health Care State Rankings 1997: Health Care in the 50 United States</u>. (5<sup>th</sup> Ed.) Lawrence, KS: Morgan Quitno Press.

A recent federal requirement by the Bureau of Primary Health Care is the development of the Louisiana Primary Care Access Plan as a means of documenting primary health care resources and unmet primary care needs within our state. The objective is to identify those areas or populations in greatest need for new or expanded resources. All parishes are analyzed to determine the number of full-time physicians available to the population, with an acceptable ratio being 1,500 persons per full-time physician. The population used for the ranking is either the total population for each parish or the parish population with an income below 200% of the federal poverty guidelines. When the population of greatest need is used, all parishes in Louisiana demonstrate need. The parishes are then ranked utilizing thirty different health and economic indicators. Based on the total state population at a ratio of 1,500 persons per physician, Louisiana needs 2,813 physicians. The Primary Care Access plan indicates a total Full-Time Equivalency (FTEs) of 2,370, which indicates we need approximately 500 more FTEs to meet the standard established by the Bureau of Primary Health Care.

In addition to confirming the shortage among physicians and nurses, other occupations identified as posing a general supply problem in the state include dentists (in <u>Health Care State Ranking 1997</u>, American Dental Association statistics report 44 dentists per 100,000 population in Louisiana in 1996 - lower than the national rate of 54), hygienists, physician assistants, pharmacists, nutritionists, audiologists, social workers, public health personnel, physical therapists, and medical technologists.

Louisiana has attempted to address the problems associated with health professional shortages over the years in many ways. State schools of medicine, nursing schools, and schools of allied health professions have been mandated to cooperate, in collaboration with the Louisiana Area Health Education Centers, to improve and expand programs for non-metropolitan and other health professional shortage areas. Hundreds of thousands of dollars of state funds have in the past been allocated to capture federal dollars for professional development initiatives, including scholarship programs for students who will return to health professional shortage areas, and loan repayment programs for medical professionals to practice in shortage areas in exchange for payment of professional education loans. However, during FY 97/98 only continuation funding has been appropriated to continue the contracts with the health care providers through the State Loan Repayment Program (SLRP). The SLRP is a program with federal dollars to match the state investment in recruitment and retention of health care providers to serve underserved people.

Louisiana **must continue** to aggressively attack the health professional shortage problem to meet the existing health needs of its residents. Lack of access to appropriate care in their communities is resulting in many ill persons having to become patients at state hospitals. However, these same individuals could best be served if there were more outpatient primary care facilities available and accessible in their own areas. Ensuring appropriate and adequate primary care facilities can take place only if there are available physicians, nurses, and other health care professional to staff the facilities, and state financing to support these providers.

# B. Louisiana Health Care Statistics<sup>3</sup>

Percent of Population Represented by Medicaid Recipients in 1996 <sup>4</sup>			
Alabama	12.78%		
Arkansas	14.45%		
Louisiana	17.88%		
Mississippi	18.76%		
Texas	13.44%		
Nation Control 1005	13.61%		
Percent of Population Lacking Access to Primary Care in 1995	47.70/		
Alabama	17.7%		
Arkansas	13.0%		
Louisiana	23.7%		
Mississippi	27.6%		
Texas	10.8%		
Nation	10.5%		
Percent of Population Not Covered by Health Insurance in 1995			
Alabama	13.5%		
Arkansas	17.9%		
Louisiana	20.5%		
Mississippi	19.7%		
Texas	24.5%		
Nation	15.4%		
Number (Percent of Population) of Emergency Outpatient Visits to Hospitals in 1995			
Alabama	2,097,114 (49.4%)*		
Arkansas	1,076,174 (43.3%)		
Louisiana	2,349,511 (54.2%)		
Mississippi	1,388,553 (51.5%)		
Texas	6,544,457 (34.8%)		
Nation	99,911,108 (38.0%)		
Percent of Population Enrolled in Medicare - 1995:	,		
Alabama	15.13%		
Arkansas	17.02%		
Louisiana	13.38%		
Mississippi	14.73%		
Texas	11.07%		
Nation	14.28%		
Number of Health Maintenance Organizations (HMOs), Louisiana 1995/1997 <sup>5</sup>	14/26		
Percent of Population Enrolled in HMOs, Louisiana 1996	11.0%		
Number of Preferred Provider Organizations (PPOs), Louisiana 1994/1995	30/26		
Percent of Population Enrolled in a PPO, Louisiana 1993/1994	15.5%/44.2%		
Number of Nurses, Louisiana 1997 <sup>6</sup>	39,354		
Number of Nurse Practitioners, Louisiana 1997	465		
,			

<sup>3</sup> Morgan, K.O. and Morgan, S. (Eds.). 1997. <u>Health Care State Rankings 1997: Health Care in the 50 United States</u>. (5<sup>th</sup> Ed.) Lawrence, KS: Morgan Quitno Press.

<sup>&</sup>lt;sup>4</sup> State Center for Health Statistics, Office of Public Health; Health Care Financing Administration (HCFA).

<sup>\*</sup>Percent of 1995 population represented by the number of Emergency Outpatients Visits. State Center for Health Statistics.

5 Health Resources Management, Office of Public Health.

6.7 Louisiana Board of Nursing

# C. Louisiana Health Care Access

Number of Hospitals and Beds (1997)						
Type of Hospital	Hospitals	Beds				
General	125	18,658				
Long-Term	18	1,735				
Rehabilitative	11	489				
Acute Chemical Dependency Unit	1	40				
Psychiatric 23 2,530						
Chemical Dependency Unit	4	272				

Source: Health Resources Management, Office of Public Health

Health Facilities in Louisiana (1997)							
Type of Facility	Number						
Alcohol/Drug Abuse Clinics	179						
Community Health Clinics	22						
Developmental Disability Clinics	19						
Hospitals	182						
Mental Health Clinics	89						
Rural Health Clinics	69						
Public Health Clinics	108						

Source: Health Resources Management, Office of Public Health

Nursing Home Statistics (1997)							
Number of Nursing Homes 303							
Number of Beds							
Licensed Beds	40,367						
Medicaid Enrollment Beds	36,870						
Average Occupancy	82.9%						

Source: Louisiana Board of Nursing

Lack of Access to Primary Care* (1995)									
State Percent Rank**									
Alabama	17.7	5							
Arkansas	13.0	12							
Louisiana	23.7	2							
Mississippi	27.6	$\overline{1}$							
Texas	10.8	21							
NATION	10.5	-							

<sup>\*</sup>Lack of Access to Primary Care measures the percent of population areas where the population is under-served by primary care practitioners residing in designated Health Manpower Shortage Areas.

<sup>\*\*</sup>Rank reflects worst (lowest) to best (highest)

Source: Morgan, K.O. and Morgan, S. (Eds.). 1997. <u>Health Care State Rankings 1997: Health Care in the 50 United States</u>. (5<sup>th</sup> Ed.) Lawrence, KS: Morgan Quitno Press.

#### D. Medicaid

Medicaid, or Title XIX of the Social Security Act, became law in 1965 as a jointly funded cooperative venture between the Federal and State governments. Its purpose was to assist States in the provision of adequate medical care to eligible individuals and families with low incomes and resources. Within broad, Federally provided national guidelines, Louisiana has autonomy in establishing its own eligibility standards; determining the type, amount, duration, and scope of services; setting the rate of payment for services; and administering its own program.

As the largest provider of medical and health-related services to America's poorest people, Medicaid includes funding for these basic health-care programs: inpatient and outpatient hospital services; laboratory and X-ray services; skilled nursing and home health services; doctors' services; family planning; and periodic health checkups, diagnosis and treatment for children.

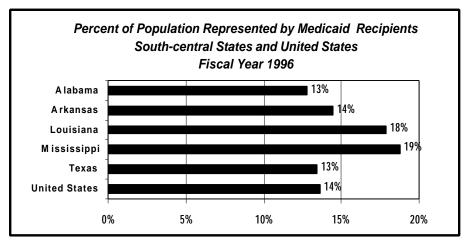
Medicaid recipients fall into several categories of eligibility: the aged, blind and disabled people on Supplemental Security Income, certain low-income pregnant women and children, and people who have very high medical bills. In Fiscal Year 1996, over 777,000 Louisianians benefited from services provided through Medicaid funding.

Number of Medicaid Recipients by Basis of Eligibility South-central States, Fiscal Year 1996								
	Total Percent* of Total Recipients							
State	Number of Recipients	Age 65 and Older Blind Disabled Under Age Adults in 21 FDC <sup>+</sup>						
Alabama	546,272	13.0	0.3	24.8	45.8	15.5	0.5	
Arkansas	362,635	14.5	0.3	24.9	34.4	15.5	9.4	
Louisiana	777,708	12.7	0.2	20.1	47.6	16.6	2.8	
Mississippi	509,581	12.7	0.3	24.7	47.5	13.9	0.4	
Texas	2,571,547	11.9	0.2	10.9	57.3	19.7	0.0	

<sup>&</sup>quot;'Unknown' basis of eligibility not included in table

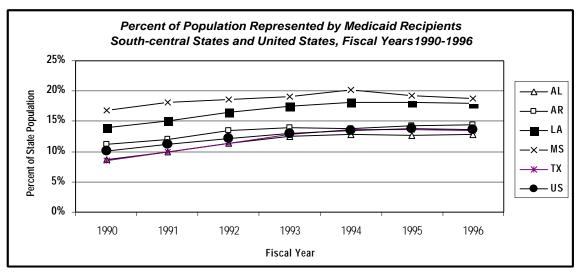
Source: Health Care Financing Administration, HCFA-2082 Report for FY 1996

The total number of Medicaid recipients in Louisiana in Fiscal Year 1996 is the equivalent of 18% of the state's population, a figure approximately 5% higher than that seen in most other South-central states and in the nation as a whole.



<sup>&</sup>lt;sup>†</sup>Families with Dependent Children

The percentage of Louisiana's population represented by Medicaid beneficiaries has been unchanged since 1993. Among the South-central states, only Mississippi has had a higher percentage of its population represented by Medicaid beneficiaries.



Source: Health Care Financing Administration, HCFA-2082 Report for FY 1996

Of Louisiana Medicaid medical care recipients in Fiscal Year 1996, 61.3% were female and 38.4% were male. These figures are similar to those seen in other South-central states. For the United States as a whole, 57.9% of recipients were female and 36.4% were male.

Number and Percent of Medicaid Recipients of Medical Care by Gender South-central States and United States, Fiscal Year 1996								
Male Female								
State	Number	Percent*	Number	Percent*				
Alabama	200,646	36.7	338,728	62.0				
Arkansas	135,413	37.3	225,181	62.1				
Louisiana	298,983	38.4	476,926	61.3				
Mississippi	185,367	36.4	323,155	63.4				
Texas	987,771	38.4	1,583,759	61.6				
United states	13,133,463	36.4	20,919,599	57.9				

<sup>†</sup>Percent of all Medicaid recipients in the state. Unknown gender not included in table. Source: Health Care Financing Administration, HCFA-2082 Report for FY 1996

Like Alabama and Mississippi, the majority of Medicaid beneficiaries who received medical care in Louisiana were African-American (59.4%). In Louisiana, 33.8% were White and 6.9% were of Other race/ethnic groups. The race/ethnic group differences seen among the South-central states, and between Louisiana and the nation as a whole, reflect state-level differences in race/ethnic populations.

Number and Percent of Medicaid Recipients of Medical Care by Race South-central States and United States, Fiscal Year 1996									
	White* Black* Other**								
State	Number	Percent <sup>+</sup>	Number	Percent <sup>+</sup>	Number	Percent <sup>+</sup>			
Alabama	240,879	44.1	277,678	50.8	27,715	5.1			
Arkansas	157,815	59.4	321,006	34.4	30,760	6.2			
Louisiana	215,381	33.8	124,919	59.4	22,335	6.9			
Mississippi	262,675	31.0	461,576	63.0	53,457	6.0			
Texas	744,746	29.0	523,889	20.4	1,302,912	50.7			
United States	16175445	44.8	8639625	23.9	11302885	31.3			

<sup>\*</sup>Non-Hispanic

Source: Health Care Financing Administration, HCFA-2082 Report for FY 1996

The two tables below present the number and percent of total Medicaid medical care recipients divided into age groups. Almost fifty percent of Medicaid medical care recipients in Fiscal Year 1996 were below 15 years of age, reflecting the importance placed on provision of health services to children. The age-group distribution of services in Louisiana was similar to that seen in surrounding states and in the nation as a whole.

Number of Medicaid Recipients of Medical Care by Age Group South-central States and United States, Fiscal Year 1996										
State	Age Group									
State	Under 1	1 to 5	6 to 14	15 - 20	21 - 44	45 - 64	65 - 74	75 - 84	85 and Over	Unknown
Alabama	28,103	127,986	106,131	43,683	102,757	48,663	32,383	31,319	24,601	646
Arkansas	15,583	71,121	70,723	33,444	72,628	31,798	21,985	23,904	19,481	1,968
Louisiana	58,547	162,670	164,331	71,214	156,676	62,716	39,371	36,099	26,077	7
Mississippi	26,231	104,134	99,927	46,725	101,957	44,431	31,499	30,573	23,051	1,053
Texas										
United states	1,674,713	6,502,896	6,888,632	3,201,100	8,227,827	2,904773	1,779,250	1,577,607	1,343,408	2,017,749

Source: Health Care Financing Administration, HCFA-2082 Report for FY 1996

Percent* of Medicaid Recipients of Medical Care by Age Group South-central States and United States, Fiscal Year 1996										
Age Group										
State	Under 1	1 to 5	6 to 14	15 - 20	21 - 44	45 - 64	65 - 74	75 - 84	85 and Over	Unknown
Alabama	5.1	23.4	19.4	8.0	18.8	8.9	5.9	5.7	4.5	0.1
Arkansas	4.3	19.6	19.5	9.2	20.0	8.8	6.1	6.6	5.4	0.5
Louisiana	7.5	20.9	21.1	9.2	20.1	8.1	5.1	4.6	3.4	0.0
Mississippi	5.1	20.4	19.6	9.2	20.0	8.7	6.2	6.0	4.5	0.2
Texas	10.2	23.9	21.8	7.8	18.9	5.7	4.9	3.9	3.0	0.0
United states	4.6	18.0	19.1	8.9	22.8	8.0	4.9	4.4	3.7	5.6

\*Percent of all Medicaid recipients in the state

<sup>\*\*</sup>Hispanic, American Indian, Alaskan Native, Asian, Pacific Islander, Other, Unknown

<sup>\*</sup>Percent of all Medicaid recipients in the state

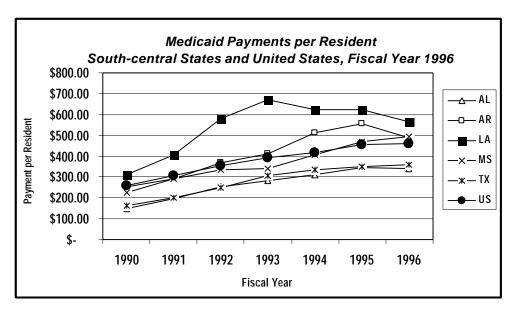
The total of payments made to Medicaid vendors for eligible recipients in Louisiana in Fiscal Year 1996 was almost \$2.5 billion. Although children under age 21 constituted 48% of those eligible for benefits in 1996, they received only 16% of the payments made. Seventy-two percent of Medicaid funding went to persons who were disabled or were age 65 or over.

Medicaid Vendor Payments by Basis of Eligibility of Recipient South-central States, Fiscal Year 1996							
	Total	Age 65 and			Children Under	Adults in	
State	Payments	Older	Blind	Disabled	Age 21	FDC*	Other
Alabama	\$1,461,101,085	\$472,523,156	\$5,220,127	\$535,678,640	\$140,069,631	\$145,329,084	\$9,743,579
Arkansas	\$1,223,839,204	\$372,264,440	\$6,622,084	\$553,545,956	\$119,728,789	\$70,835,345	\$91,868,256
Louisiana	\$2,452,543,946	\$656,401,721	\$10,505,456	\$1,106,260,107	\$403,818,250	\$258,016,925	\$17,541,487
Mississippi	\$1,341,660,815	\$367,843,927	\$5,789,737	\$577,992,576	\$241,534,473	\$138,423,186	\$7,695,696
Texas	\$6,871,224,596	\$1,937,670,286	\$24,943,351	\$2,238,486,948	\$1,545,909,822	\$1,124,214,189	0

\*Families with Dependent Children

Source: Health Care Financing Administration, HCFA-2082 Report for FY 1996

In Fiscal Year 1996, Medicaid funding per state resident was higher in Louisiana than in any of the other South-central states. Medicaid payments averaged \$568.00 per state resident, approximately 23% more than the national average of \$459.00 per United States resident. This figure has declined, however, from its 1993 peak of \$670.00 per state resident.



As part of the cost-saving measures available through the Medicaid program, states are making increased use of enrollment of Medicaid beneficiaries in managed care programs. The following table shows the number of enrollees in Medicaid managed care programs as of June 30, 1996. These numbers include individuals enrolled in State health care reform programs that expand eligibility beyond traditional Medicaid eligibility standards.

Number of Medicaid Managed Care Enrollees South-central States and United States, June 1996				
State	Number of Enrollees			
Alabama	56,929			
Arkansas	143,232			
Louisiana	44,772			
Mississippi	35,137			
Texas	75,776			
United States	13,330,119			

# E. Medicare

Medicare is the nation's largest health insurance program, covering over 38 million Americans at a cost of just under \$200 billion. Medicare provides health insurance to people who are at least 65 years old, the disabled, and those with permanent kidney failure. People who receive Social Security or Railroad Retirement benefits are automatically enrolled when they become eligible for Medicare. Others must apply at their local Social Security office.

Medicare has two parts: Hospital Insurance (Part A) and Medical Insurance (Part B). Medicare Part A helps pay for inpatient hospital services, skilled nursing facility services, home health services, and hospice care. Medicare Part B helps pay for doctor services, outpatient hospital services, medical equipment and supplies, and other health services and supplies.

Many Medicare beneficiaries choose to enroll in managed care plans like Health Maintenance Organizations. They can get both Part A and Part B benefits in most managed care plans.

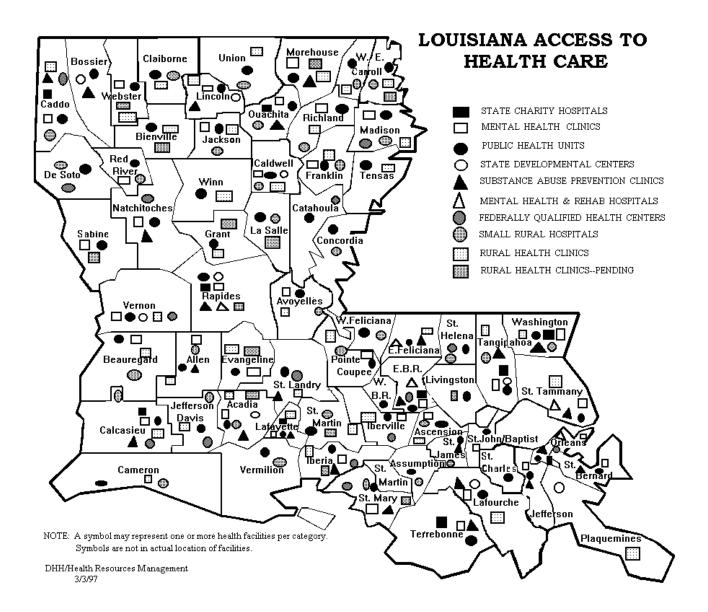
As of March 1, 1998, Louisianans enrolled in the Medicare program numbered 591,000. This number constitutes 14% of the state's population, a percentage similar to that of surrounding states and the nation as a whole.

Percent of State Population Enrolled in Medicare South-central States and United States, September 1997				
State	Percent Enrolled			
Alabama	15.3			
Arkansas	17.0			
Louisiana	13.6			
Mississippi	14.9			
Texas	11.1			
United States	14.0			

Source: Health Care Financing Administration, Report on Medicare Enrollee Distribution by State, March 1998

#### F. Provider Sites

The following pages describe the various health care facilities available to the public throughout the state of Louisiana. As the map below displays, these facilities include the state Charity hospital system, small rural and community hospitals, public health clinics, rural health clinics, Federally Qualified Health Centers (FQHCs), developmental centers, mental health clinics, mental health and rehabilitation hospitals, and substance abuse prevention clinics. Other programs such as School-Based Health Centers, Community Care, and Health Maintenance Organizations (HMOs) are discussed.



# **State Charity Hospitals**

The Louisiana Charity Hospital system currently is being operated by the Louisiana State University Medical Center. The first Charity Hospital (in New Orleans) was built in 1736. The system was expanded across the State during the administration of Governor Huey Long. Two new medical centers were added in 1978 and 1993, and two were rebuilt in the late 1970s.

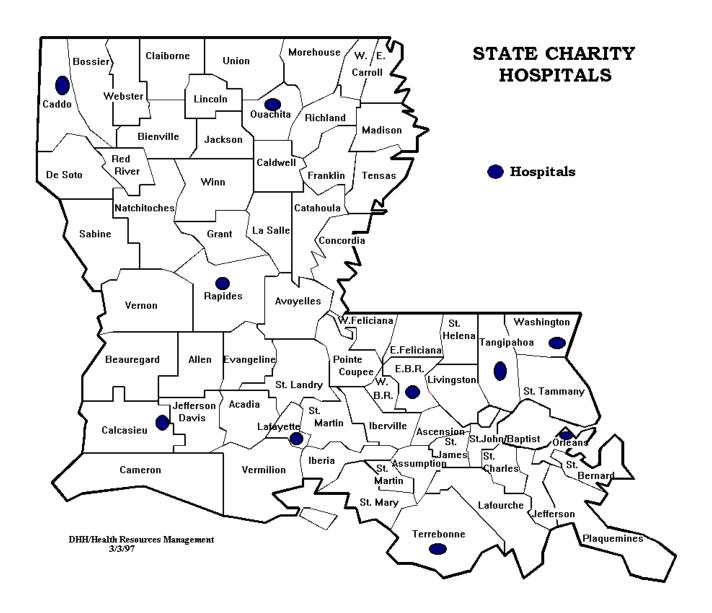
Today there are ten hospitals (see map on following page), with more than 2,000 beds in the Charity system, treating more than a million patients a year. Annually, these hospitals have nearly 97,000 admissions, 12,475 births, and more than 1,300,000 outpatient visits. The occupancy rate for the system is close to 80%.

Most of the Charity Hospitals are teaching hospitals used to train medical school, graduate, and postgraduate students from the Louisiana State University (LSU) Schools of Medicine and Nursing, as well as other professional educational institutions.

## **Small Rural and Community Hospitals**

Louisiana has a number of very small rural and community hospitals, some public and some privately owned. Eight of the State's sixty-four parishes do not have a hospital. As part of the move toward managed care, some of the small rural hospitals and the Charity Hospitals have begun to formalize their long-standing links with the primary care clinics in their regions.

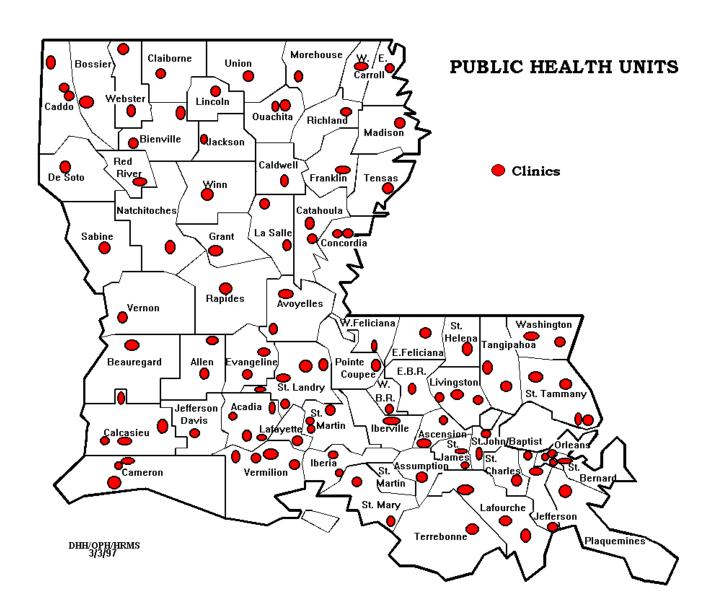
In its Rural Health Care Initiative, the State has appropriated money to support small rural hospitals suffering financial distress. This support has taken the form of grants provided to 34 small rural hospitals (less than 60 beds) for a variety of projects. For example, last year the State awarded grants to a number of these hospitals for the purchase of updated emergency room equipment and physician coverage for the emergency room. Without such support, some of these hospitals would have had to close their emergency rooms.



#### **Public Health Clinics**

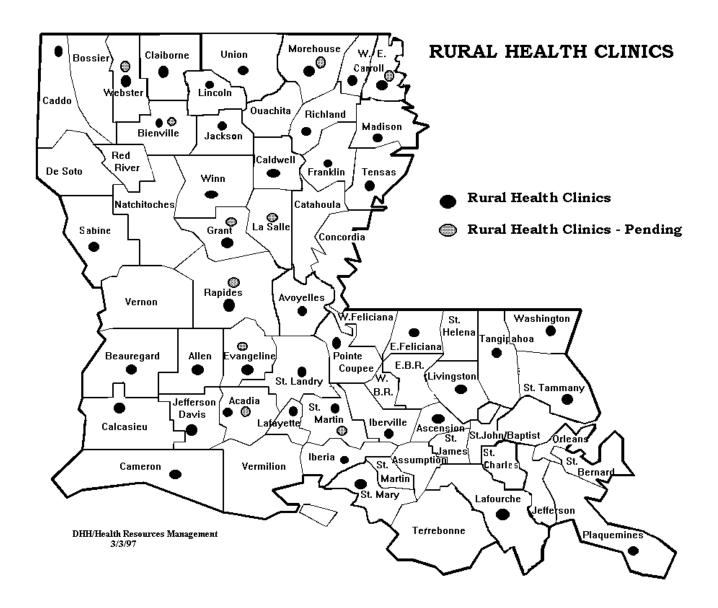
Louisiana's Department of Health and Hospitals, Office of Public Health, currently operates 108 parish health units (see map below). These units provide services in the following areas: immunization; family planning; prenatal care; newborn screening for genetic disorders; well-baby care; nutrition therapy; individual nutrition counseling; genetic evaluation and counseling; early intervention services for individuals infected with HIV; health education; and testing and monitoring of infectious diseases (e.g., tuberculosis, sexually transmitted diseases/HIV/AIDS).

There are nine Children's Special Health Services Clinics, one Family Planning Clinic, five Sexually Transmitted Disease Clinics, and one Tuberculosis Clinic. In addition, sanitarians working out of the public health units perform inspections and monitoring of the environment as it relates to health risks.



#### **Rural Health Clinics**

Louisiana has 86 federally designated rural health clinics, and approximately ten applications currently are pending (see map below). These are clinics operating in a rural area designated as "medically underserved" or as a "Health Professional Shortage Area (HPSA)." Rural health clinics must be staffed by one or more physicians and one or more mid-level practitioners, such as physician assistants, nurse practitioners, or certified nurse midwives. Clinics must provide routine diagnostic services, maintain medical supplies, dispense drugs, and have arrangements with local hospitals and other providers for services not available at the clinic.



#### **Community Care**

Community Care is a system of comprehensive health care based on primary care case management (PCCM). Operating in twenty parishes (see map on following page) under a Medicaid 1915 (b) waiver from the federal government, the program is designed to meet the needs of the rural population. It is a freedom of choice waiver program which must demonstrate cost effectiveness. The program links Medicaid recipients in designated parishes with a physician, clinic, Federally Qualified Health Center (FQHC), or rural health clinic that serves as the primary care physician (PCP).

The PCP may be a family practice doctor, internist, pediatrician, rural health clinic, or federally qualified health center. The PCP has total responsibility for managing all facets of the recipient's health care, including education, prevention, maintenance, and acute care. Referral for specialty services is an integral component of Community Care.

The program is operational in twenty rural parishes in Louisiana, with a total of 43,000 enrolled recipients. There are 148 enrolled providers, some of which consist of more than one physician. PCPs are paid a primary care management fee of \$3.00 each month for each Community Care recipient for whom they manage care, in addition to the normal fee-for-service reimbursement from Medicaid for services rendered. Without prior authorization or post-emergency authorization from the PCP, Medicaid will not reimburse for services beyond the PCP.

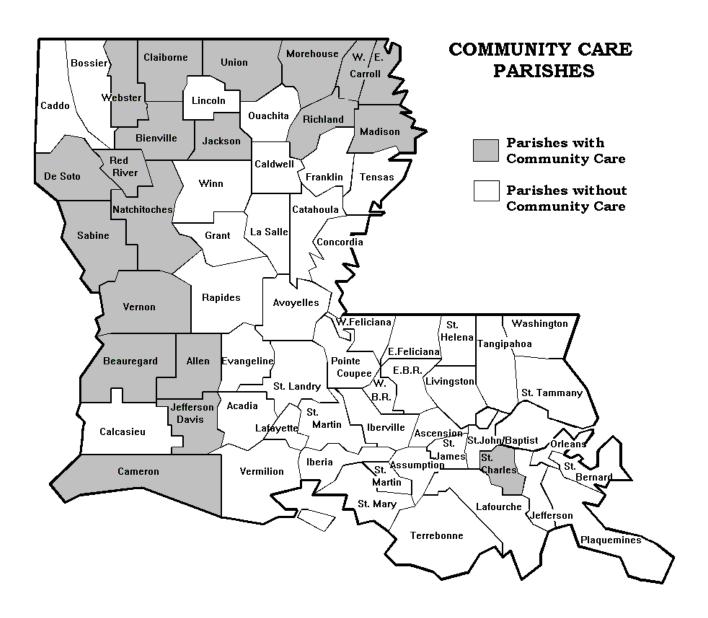
# Federally Qualified Health Centers (FQHC)

Louisiana has twelve grantees for community health centers delivering service to twenty-two sites that are federally-supported through grants from the U.S. Public Health Service.

An FQHC (also known as Community Health Centers) is a freestanding health clinic which provides comprehensive preventive and primary care services. In addition to primary care physicians and support staff, FQHC staff may include advanced nurse practitioners, physician assistants, and dentists. Centers may also have social workers or counselors, and there is a growing trend to include psychologists and other mental health and substance abuse services. Services most commonly provided at these centers include preventive health services, well-child services, acute care, perinatal care, family planning, diagnostic laboratory and radiological services, emergency medical services, transportation services, preventive and restorative dental services, and pharmaceutical services.

Several of the FQHCs have formed innovative clinic-based health care networks of both public and privately-owned entities. The clinic itself offers comprehensive primary care services through private physicians and other providers on a contractual basis. The FQHC shares staff with the Office of Public Health's parish health units and receives referrals from them. The staff at the clinics have formal admitting privileges with private hospitals in the network and informal admitting privileges at some of the Charity Hospitals in their respective areas. The FQHCs also refer patients to the hospital for subspecialty clinic or inpatient services.

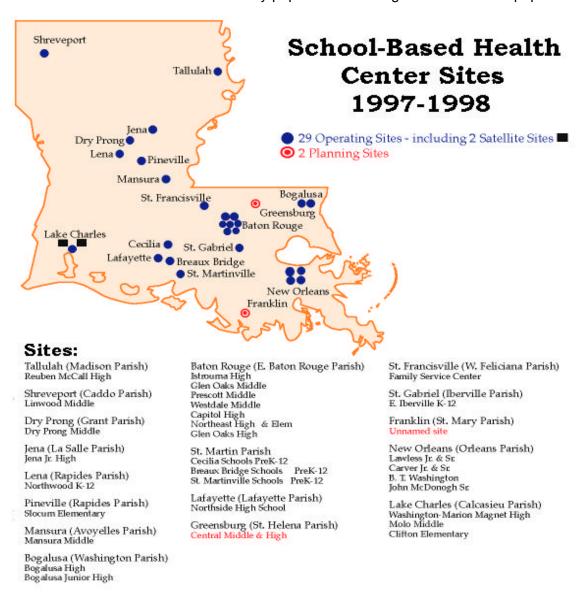
Major health professional education institutions have formal relationships with some of the FQHCs. The relationship involves staffing residents and interns at the clinic for training purposes. Clinic training is also provided to students of a local nursing school and LPN school. Some training is also provided to high school students to encourage them to enter health care professions.



#### **School-Based Health Centers**

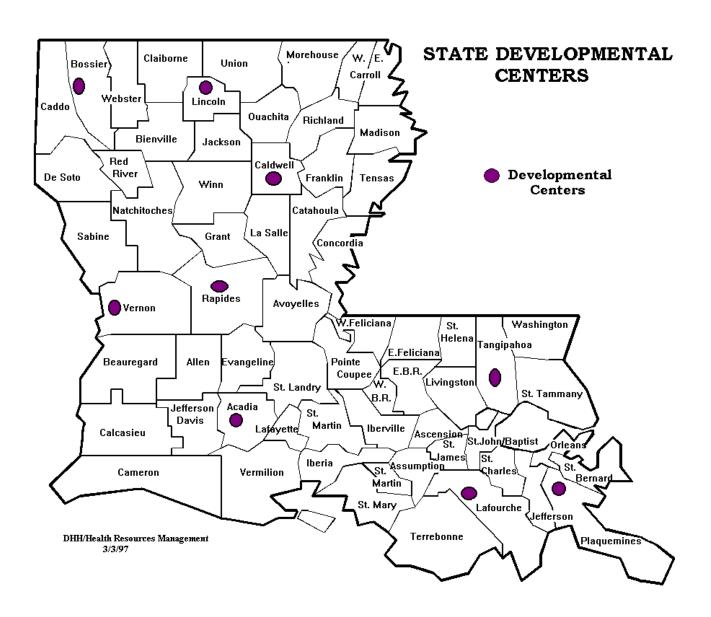
In response to the Adolescent School Health Initiative authorized by the Louisiana State Legislature in 1991, DHH, Office of Public Health has funded and provides technical assistance to localities for the establishment and operation of full-service health centers in middle and secondary schools (see map below). These programs (there are currently 16) are operated at the local level by a health or education sponsoring agency under contract with the Office of Public Health. The State will continue to pay these centers a portion of their cost.

The centers primarily serve low-income adolescents in rural and medically underserved urban areas. The centers offer primary and preventive physical and mental health care, including health education and counseling services. Each center is staffed at a minimum by a part-time physician, a full-time nurse practitioner or registered nurse with adolescent experience, and a master's level mental health counselor. These centers have been immensely popular with the high-risk adolescent population.



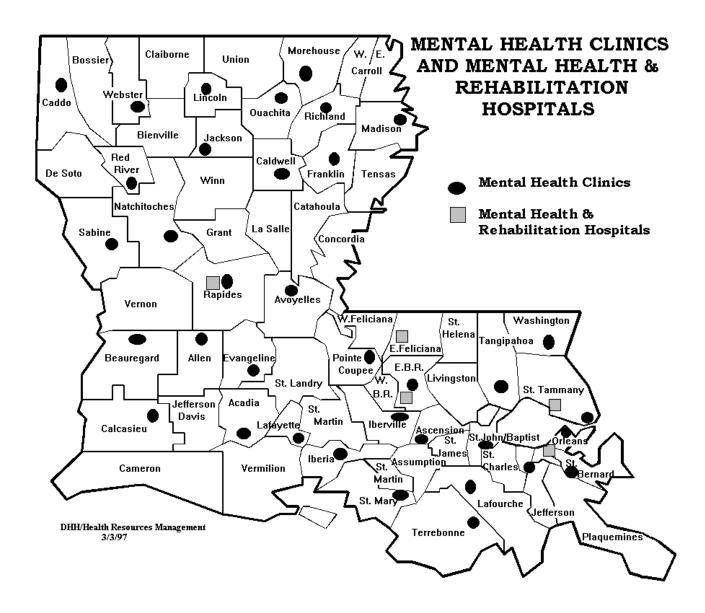
#### **Developmental Centers**

Services and supports for individuals with mental retardation and developmental disabilities are provided by private provider agencies through contractual agreements, as well as through Louisiana's nine developmental centers which provide 24-hour care and active treatment (see map below). The broad range of services provided includes case management, diagnosis and evaluation, early intervention/infant habilitation, respite, family support, vocational and habilitative services, and residential services (community homes, supervised apartments, supportive living).



#### **Mental Health Clinics**

Louisiana's Department of Health and Hospitals, Office of Mental Health, either directly or through partnerships with private and university resources, provides an array of community-based and hospital-based services, the range of which is consistent with national models for public mental health care for individuals with serious mental illnesses. Statewide there currently are 43 community mental health centers, 33 outreach sites, seven acute treatment units, five Intermediate/Long-term Care Hospitals and one forensic hospital (see map below). Major service components include crisis response programs, assertive community treatment, family or consumer respite care, traditional clinic-based services, community forensic interventions, hospital-based inpatient intensive and intermediate units, case management, and rehabilitative services.



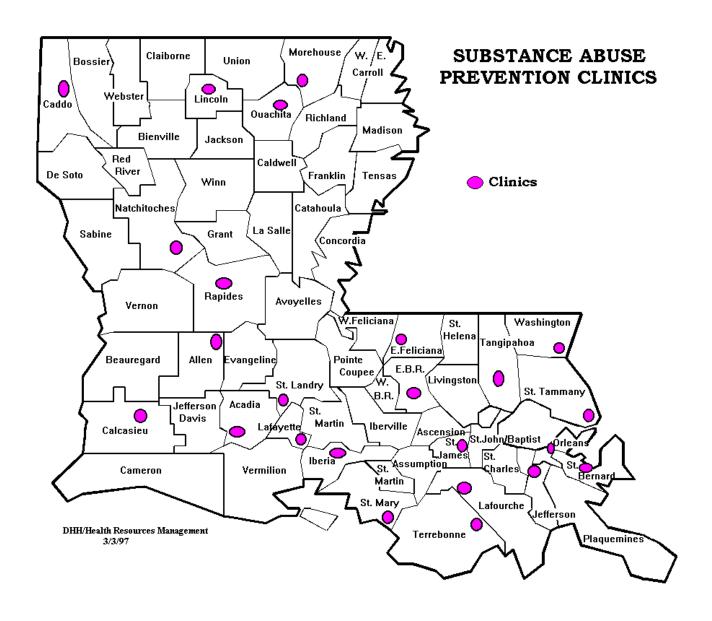
### **Substance Abuse Prevention Clinics**

Louisiana's Department of Health and Hospitals, Office of Alcohol and Drug Abuse, through contracts or through an array of community-based and residential programs, provides services and continuity of care for the prevention, diagnosis, treatment, rehabilitation and follow-up care of alcohol and other drug abuse diseases (see map on following page). This system is composed of nine treatment delivery regions, 27 outpatient clinics, 23 satellite clinics, four detoxification centers, eight residential facilities, and one pre-release program for adult incarcerated substance abusers.

#### **Existing Health Maintenance Organizations**

Louisiana currently has 26 licensed health maintenance organizations operating in the State. Under State insurance law, an HMO is defined as any plan delivering basic health benefits for a prepaid fee. Most of the State's HMOs are composed of independent physicians practicing alone or in small medical groups. According to Health Care State Rankings 1997, as of 1995, approximately 477,561 (10.0%) Louisianans were enrolled in health maintenance organizations.

In addition to HMOs, the Louisiana Managed Health Care Association lists as members preferred provider organizations (PPOs) and several physician hospital networks (PHOs) operating in the State.



# G. Inventory of Providers

Primary Care Physicians, Louisiana By Region and Parish						
Region/Parish	Family Practice	General Practice	Internal Medicine	Obstetrics/ Gynecology	Pediatrics	Totals
Region 1 Jefferson Orleans Plaquemines St. Bernard	119 58 60 0 1	62 24 32 2 4	830 377 436 3 14	233 117 114 1	329 142 182 0 5	1573 718 824 6 25
Region 2 Ascension E. Baton Rouge E. Feliciana Iberville Pointe Coupee W. Baton Rouge W. Feliciana	119 10 87 3 7 8 2	70 3 53 8 3 0	213 3 202 1 4 1 1	82 0 79 0 2 1 0	96 0 93 0 3 0 0	580 16 514 12 19 13 3
Region 3 Assumption Lafourche St. Charles St. James St. John St. Mary Terrebonne	57 4 19 4 6 5 11	25 2 8 1 2 1 3 8	67 1 18 0 0 5 8 35	31 0 11 1 3 6	32 0 6 4 1 2 3 16	212 7 62 10 10 16 31 76
Region 4 Acadia Evangeline Iberia Lafayette St. Landry St. Martin Vermilion	94 12 4 15 36 16 5	61 5 9 10 21 8 2 6	147 4 7 12 93 23 1 7	66 3 4 8 37 10 1	66 5 2 9 35 11 0 4	434 29 26 54 222 68 9 26
Region 5 Allen Beauregard Calcasieu Cameron Jefferson Davis	65 6 9 45 1 4	14 1 0 8 0 5	76 4 5 60 1 6	34 0 3 28 0 3	31 1 2 26 0 2	220 12 19 167 2 20

Primary Care Physicians, Louisiana By Region and Parish						
Region/Parish	Family Practice	General Practice	Internal Medicine	Obstetrics/ Gynecology	Pediatrics	Totals
Region 6	50	27	94	19	32	222
Avoyelles	7	7	3	0	1	18
Catahoula	1	1	3	0	1	6
Concordia	4	4	2	1	0	11
Grant	2	2	0	1	0	5
LaSalle	2	2	3	1	0	8
Rapides	30	5	72	16	27	150
Vernon	2	3	9	0	2	16
Winn	2	3	2	0	1	8
Region 7	118	29	274	74	96	591
Bienville	1	1	0	0	0	2
Bossier	21	3	33	8	9	74
Caddo	66	9	221	59	77	432
Claiborne	6	3	0	0	1	10
DeSoto	1	3	1	1	0	6
Natchitoches	6	3	9	3	5	26
Red River	2	2	0	0	0	4
Sabine	4	2	6	0	1	13
Webster	11	3	4	3	3	24
Region 8	65	37	102	25	36	265
Caldwell	3	1	3	0	0	7
E. Carroll	2	1	2	0	1	6
Franklin	3	0	_ 1	0	1	5
Jackson	0	0	5	0	1	6
Lincoln	5	3	11	3	5	27
Madison	0	2	1	0	1	4
Morehouse	7	5	4	2	2	20
Ouachita	36	17	62	19	24	158
Richland	7	2	3	1	0	13
Tensas	0	2	0	0	0	2
Union	1	3	7	0	0	11
W. Carroll	1	1	3	0	1	6
Region 9	67	26	131	44	64	332
Livingston	5	2	1	1	1	10
St. Helena	1	2	2	1	0	6
St. Tammany	32	10	98	32	51	223
Tangipahoa	18	6	18	8	10	60
Washington	11	6	12	2	2	33
Total	754	351	1934	608	- 782	4429
Percent	17%	8%	44%	14%	18%	-

Source: Louisiana Board of Medical Examiners, 1/1998

Selected Mental Health Professionals, Louisiana by Region and Parish		
Region/Parish	Psychiatrists	Social Workers*
Region 1	271	1079
Jefferson	75	326
Orleans	196	736
Plaquemines	0	2
St. Bernard	0	15
Region 2	51	564
Ascension	0	9
E. Baton Rouge	45	520
E. Feliciana	4	7
Iberville	0	8
Pointe Coupee	0	7
W. Baton Rouge W. Feliciana	0	2 11
w. Feliciana		11
Region 3	11	67
Assumption	0	1
Lafourche	1	26
St. Charles	1	16
St. James St. John	0	4
St. Mary	0	9 7
Terrebonne	9	4
Terreporitie		4
Region 4	24	206
Acadia	0	6
Evangeline	0	3
Iberia	1	13
Lafayette	20	151
St. Landry	2	18
St. Martin	0	4
Vermilion	1	11
Region 5	18	93
Allen	0	4
Beauregard	1	3
Calcasieu	15	81
Cameron	0	0
Jefferson Davis	2	5

Region/Parish         Psychiatrists         Social Worker           Region 6         22           Avoyelles         0           Catahoula         0           Concordia         0           Grant         0           LaSalle         0           Rapides         21           Vernon         1           Winn         0           Region 7         55           Bienville         0           Bossier         4           Caddo         48	275*  118  9  0  4  1  92  5  3  206  2  23
Avoyelles       0         Catahoula       0         Concordia       0         Grant       0         LaSalle       0         Rapides       21         Vernon       1         Winn       0         Region 7       55         Bienville       0         Bossier       4	9 0 4 1 92 5 3 206 2
Avoyelles       0         Catahoula       0         Concordia       0         Grant       0         LaSalle       0         Rapides       21         Vernon       1         Winn       0         Region 7       55         Bienville       0         Bossier       4	9 0 4 1 92 5 3 206 2
Catahoula       0         Concordia       0         Grant       0         LaSalle       0         Rapides       21         Vernon       1         Winn       0         Region 7       55         Bienville       0         Bossier       4	0 4 1 92 5 3 206 2
Concordia       0         Grant       0         LaSalle       0         Rapides       21         Vernon       1         Winn       0         Region 7       55         Bienville       0         Bossier       4	4 1 92 5 3 206 2
Grant       0         LaSalle       0         Rapides       21         Vernon       1         Winn       0         Region 7       55         Bienville       0         Bossier       4	4 1 92 5 3 206 2
LaSalle       0         Rapides       21         Vernon       1         Winn       0         Region 7       55         Bienville       0         Bossier       4	1 92 5 3 206 2
Rapides       21         Vernon       1         Winn       0         Region 7       55         Bienville       0         Bossier       4	92 5 3 206 2
Vernon         1           Winn         0           Region 7         55           Bienville         0           Bossier         4	5 3 206 2
Winn         0           Region 7         55           Bienville         0           Bossier         4	206 2
Region 7 55 Bienville 0 Bossier 4	206 2
Bienville 0 Bossier 4	2
Bienville 0 Bossier 4	2
Bossier 4	
	2.0
	152
Claiborne 0	1
DeSoto 2	4
Natchitoches 1	14
Red River 0	2
Sabine 0	0
Webster 0	8
Region 8 15	125
Caldwell 0	3
E. Carroll 0	1
Franklin 0	1
Jackson 0	2
Lincoln 0	15
Madison 0	2
Morehouse 0	1
Ouachita 15	87
Richland 0	3
Tensas 0	0
Union 0	10
W. Carroll 0	
Region 9 40	241
Livingston 0	5
St. Helena 0	1
St. Tammany 36	125
Tangipahoa 3	100
Washington 1	100
· ·	699

Sources: Louisiana Board of Medical Examiners, 1/1998

Louisiana Board of Certified Social Work Examiners, 1996-1997 \*Licensed and residing in Louisiana. Social workers are required to have a license to work in Louisiana through contract or in private practice.

# H. Health Professional Shortage Areas (HPSA)

Health Professional Shortage Areas (HPSA) designations identify areas, populations or facilities where lack of providers pose serious barriers to adequate health care. The equitable geographic distribution of health care resources has long been recognized as a problem in the United States, and particularly in the state of Louisiana. Adequate access to health services for all citizens is an important objective of current state and federal policy. Availability of an adequate supply and distribution of health professionals is essential to the ability to access basic health care services, regardless of ability to pay. The redistribution of the supply of health professionals, particularly primary care providers, through the designation of health professional shortage areas (HPSAs) is one method used to attain this goal.

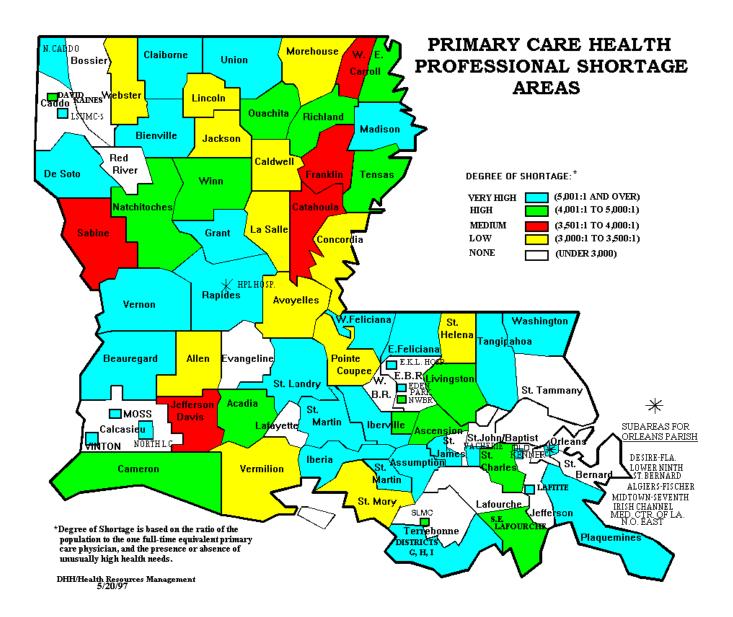
HPSA designations are used to create incentives to improve the distribution and the number of primary care providers in the most critical shortage area. The HPSA designation methodology was developed to determine exactly where shortages exist, in order to define those areas eligible for participation in the incentive programs. There are approximately 40 federal programs utilizing HPSA designations, some of which are listed below.

Designation requests and reviews are the responsibility of the DHH, OPH, Health Resource Management staff. After review and analysis, the designation studies and recommendations are forwarded to the Division of Shortage Designation in the Federal Bureau of Primary Health Care for determination. Designations of Medically Underserved Areas (MUA) or Medically Underserved Populations (MUP) also provide opportunities for improved distribution of health care resources and improved access. The designation process is similar to the HPSA process described previously.

The following are examples of Federal Programs Utilizing HPSA Designations:

- Department of Family Medicine
- Grants to Predoctoral Training in Family Medicine
- Grants for Residency Training in General IM/General PEDS
- Grants for Physician Assistant Training Program
- Grants for Preventive Medicine Training
- Nurse Practitioner and Nurse-Midwifery Programs
- Nurse Anesthetist Traineeships
- J-1 Visa Waiver Program
- Community and Migrant Health Program
- Grants for Graduate Training in Family Medicine
- Grants for Predoctoral Training in General IM/General PEDS
- Rural Health Programs
- State Health Programs

- Allied Health Traineeships
- Allied Health Project Grants
- Professional Nurse Traineeships
- Grants for Nurse Anesthetist Faculty Fellowships
- 10% Medicare Bonus Program National Health Service Corps
- Grants for Faculty Development in Family Medicine
- Grants for Faculty Development in General IM/General PEDS
- Grants for Physician Assistant Faculty Development
- Podiatric Primary Care Residency Training
- Advanced Nurse Education
- Nurse Anesthetist Education Program
- Residency Training and Advanced Education in the General Practice of Dentistry



# VI. RECOMMENDATIONS FOR IMPROVING HEALTH STATUS

#### A. Infant & Child Health

#### **Infant Mortality**

- Implement the recommendations to reduce low birth weight rates (see opposite page), since this is a leading cause of infant mortality
- Establish a systematic review of all fetal and infant deaths to gather information for the development of preventive programs
- Carry out public and professional education on risk factors for Sudden Infant Death Syndrome (SIDS)
- Encourage the cessation of smoking and avoidance of second-hand smoke during and after pregnancy
- Monitor status of pregnancy risk factors with Pregnancy Risk Monitoring and Assessment System (PRAMS) and employ this information in policy development and implementation of appropriate, effective interventions

#### **Child Health**

- Provide access to preventive health screening to low income infants and children or others who lack access to such services due to geographic or financial barriers or lack of providers
- Expand health system development for children efforts to all areas of the state to insure that all children have access to comprehensive health (primary and specialty), mental health, social and education services

## **Child Abuse and Neglect**

- Increase public awareness of child abuse prevention and positive parenting and promote parenting education in communities through the public health units
- Expand home visiting services to families at high risk for child abuse and neglect, utilizing the Healthy Families America Program and/or the Nurse Home Visiting Model

## **Health & Safety in Day Care Centers**

- Provide expertise and leadership in the development and enhancement of child care standards
- Initiate the development of a coalition of state and local health professionals, government and community agencies, child care providers, and concerned citizens to address health and safety child care issues
- Serve as an advocate for children and child care providers
- Promote appropriate health and safety measures in child care settings
- Utilize a multi-disciplinary community approach to improve quality of these facilities
- Encourage use of child care health consultants
- Encourage health care providers to become child care health consultants
- Initiate pilot projects to incorporate on-site health services in child care settings
- Encourage/assist child care centers to integrate children with special health care needs into these facilities

#### **Low Birth Weight Rates**

- Ensure access to prenatal care for all pregnant women, especially those with low income, teenagers, and those living in medically underserved areas
- Improve access to prenatal care by promoting and removing barriers to non-traditional obstetrical practitioners in Louisiana (i.e., midwives, nurse practitioners, etc.)
- Reduce substance abuse (including use of drugs, alcohol and tobacco) among pregnant women through increased funding for public education
- Increase counseling and treatment services for substance abusing pregnant women
- Increase personnel needed to fully utilize the federally-funded nutrition programs, including the Women, Infants, and Children program, for pregnant women
- Improve surveillance systems to gather information on risk factors on low birth weight pregnancies
- Increase support for Partners for Healthy Babies, which promotes healthy prenatal behaviors and early prenatal care through media messages and a toll free hotline which links pregnant women with health providers
- Initiate educational programs for health providers and pregnant women on identifying the signs of premature labor
- Analyze new Pregnancy Risk Monitoring and Assessment System (PRAMS) database to assess
  preventable risk factors associated with low birth weight, and to help identify effective and ineffective
  elements of existing efforts

#### **Teenage Birth Rates**

Facilitate the community's capacity to address teenage pregnancy by provision of information and resources. Various programs successful in reducing teenage pregnancy have accomplished some or all of the following:

- Provide educational enrichment, economic opportunities, and strengthen the family
- Involve both the public and the private sectors in developing community-centered, sustainable, collaborative, and adolescent-focused programs
- Encourage age-appropriate sex and family life education at home by parents
- Provide age-appropriate sex and family life education in schools focusing on abstinence and the delay of sexual activity
- Ensure access to information on safe sex practices and contraceptives
- Provide culturally appropriate, intensive, long-term programs that recognize family and community values
- Utilize a variety of approaches, including adult mentors, peers, and community members with similar backgrounds and experiences
- Utilize multi-disciplinary approaches: involve teachers, health professionals, social workers, and community leaders
- Develop multi-message programs addressing school drop-out, real life options, job exploration, training, placement, and individual and family counseling when necessary
- Provide comprehensive adolescent health clinics that are community-based, school-based, and/or school linked
- Ensure youth involvement in program design, implementation, and evaluation

#### B. Infectious Diseases

#### **Emerging Infections**

- Encourage appropriate and judicious use of antibiotics
- Conduct surveillance activities to identify disease trends, drug resistance patterns, and risk factors for acquiring infections
- Develop appropriate statewide guidelines for the prevention, surveillance, diagnosis, treatment, transfer of patients between health care facilities, infection control, and outbreak management
- Provide education/information to the public regarding newly emerging, re-emerging and drug resistant infections, including the importance of limiting inappropriate antibiotic use

## **Hepatitis A**

- Continue to inspect food establishments for proper sanitary procedures, including food handling, storage, preparation, and personal hygiene
- Continue to search for active cases of hepatitis A in order to identify outbreaks and provide preventive treatment
- Encourage the use of hepatitis A vaccine in specific high-risk groups, such as overseas travelers
- Provide health consultation/education to child care providers in out-of-home child care settings regarding hepatitis A, its mode of transmission, and prevention
- Provide education and information to the public regarding hepatitis A

#### **Hepatitis B**

- Vaccinate all newborns and early adolescents to prevent hepatitis B infection
- Vaccinate high-risk group, including household contacts of hepatitis B carriers, to prevent hepatitis B infection
- Continue to search for active cases of hepatitis B to identify contacts at risk
- Provide education and information to the public concerning hepatitis B

#### Influenza

- Increase immunization with influenza vaccine among high-risk groups, especially individuals over age 65 years, by increased education of health care providers and the public
- Continue active surveillance for influenza cases each year in order to inform health care providers and the public about the proper time to be immunized each fall
- Work with community groups who already reach poorly-immunized groups to increase awareness of the benefits of influenza prevention

#### **Tuberculosis**

- Continue the practice of directly observed therapy (DOT) to ensure completion of therapy
- Expand surveillance for TB through liaisons with hospital infection control practitioners and private medical groups in high-incidence areas
- Enhance the capacity to provide field-based outreach and ensure thorough follow-up
- Ensure that the in-patient treatment facility at Villa Feliciana remains a treatment option for drugresistant, recalcitrant, or other TB patients who require close supervision of therapy
- Assure prompt medical assessment of those foreign-born persons entering the state with evidence of TB

#### **Sexually Transmitted Diseases and HIV/AIDS**

- Encourage condom use among persons with more than one sex partner
- Provide STD and HIV testing and counseling, group educational sessions, and outreach to persons at high risk for STDs and HIV/AIDS
- Increase access to clinical services for STDs to ensure rapid treatment and thereby reduce spread of STDs and vulnerability to HIV
- Increase distribution of and accessibility to condoms and needles
- Enhance partner notification activities for syphilis and HIV/AIDS
- Continue support for public awareness and professional education regarding HIV/AIDS in pregnant women and the effective use of AZT in preventing perinatal transmission

#### C. Oral Health

- Continue to strengthen the fluoridation program infrastructure within the Office of Public Health
- Continue to promote expansion of community water systems that adjust water fluoride level to optimal range for reduction of dental caries
- Ensure continuous proper monitoring of all public water systems that fluoridate and provide technical assistance and training for all public water systems operators
- Assess utilization of dental pit and fissure sealants among 3<sup>rd</sup> grade school children attending Louisiana public schools
- Provide education to the public and dental profession regarding current pit and fissure sealant utilization rates among populations at high risk for dental caries
- Increase access to pit and fissure dental sealants among school children in Louisiana

#### D. Chronic Disease

#### Cancer

- Advocate cessation of tobacco use
- Encourage avoidance of second-hand smoke exposure
- Promote increasing the consumption of fruits, vegetables, and grains while reducing fat in diet
- Promote increased regular physical activity and maintenance of optimal weight
- Advocate routine Pap smears for women 18 and older
- Advocate mammograms at least every 2 years for women over 50, and for women 40-49 with a mother, sister, or child who had breast cancer
- Encourage yearly colon cancer screening tests for women and men over 50

#### **Heart Disease/Stroke**

- Advocate cessation of tobacco use
- Encourage avoidance of second-hand smoke exposure
- Promote increases in fruit, vegetable, and grain intake and reductions in fat in diet
- Promote increased regular physical activity
- Encourage maintenance of optimal weight levels
- Advocate blood pressure checks every two years
- Advocate blood cholesterol level tests every five years (if over 35)
- Support discussion of estrogen replacement therapy with a physician for post-menopausal women

#### **Diabetes**

- Advocate maintenance of optimal weight levels and physical activity
- Increase intake of fruit, vegetables, and grains while reducing fat in diet
- Promote working continuously with a physician to control blood sugar levels and monitor hemoglobin A1c through regular testing
- Encourage adoption of healthy lifestyles
- Advocate maintenance of normal blood pressure and cholesterol levels
- Encourage annual retinal exams
- Promote daily inspection of feet

# E. Alcohol & Drug Abuse

- Increase Community-based Prevention Programs
- Continue to reduce the sale of tobacco products through the SYNAR Program (program to reduce sales to minors)
- Expand medical and non-medical detoxification programs
- Expand Adolescent Outpatient Services, Inpatient Beds, and Halfway House Beds
- Maintain and expand Drug Court programs
- Provide a comprehensive array of prevention and treatment services to meet the needs of problem and compulsive gamblers
- Increase the capacity to treat Dually Diagnosed clients in each region of the state

## F. Unintentional Injuries

- Expand surveillance of non-fatal injuries
- Mandate E coding (external cause and circumstance of injury) on hospital discharge data
- Make smoke detectors readily available to high risk populations such as the elderly and low income households
- Enact bicycle helmet legislation
- Update existing child passenger restraint legislation
- Provide support for injury prevention programs commensurate with the cost of injury (i.e. hospital care, burden of injury, and potential years of life lost)

#### G. Violent Death

#### **Violence**

- Mandate systematic reporting of weapons-related injury in the state
- Finance data collection and analysis of weapons-related injury
- Educate the public regarding the need for safe firearm storage
- Educate youth regarding non-violent ways to settle disputes

#### Child Death

- Provide support to the Child Death Review Panel for the collection and analysis of child death data
- Enact legislation mandating autopsies in all unexplained child deaths
- Enhance the Panel's information sources by defraying the cost of autopsies in unexplained child deaths
- Provide support for ongoing training for local authorities on child death scene investigations

#### H. Mental Health

- Decrease the stigma associated with mental illness by increasing public education efforts
- Enhance consumer and family participation in the planning, delivery, and monitoring of services and settings, especially concerning suicide issues
- Focus education efforts on the depressed consumer, impulsive adolescent, student populations, elderly, homeless, and the chronically mentally or physically ill consumer
- Treat each person served by the mental health system in a holistic manner with services tailored to meet their individual needs
- Educate and train all physicians to recognize the signs and symptoms of persons with mental illness and/or at risk for suicide, so that appropriate referrals can be made and/or intervention measures can be taken

# VII. SPECIAL REPORT

# SPECIAL REPORT ON THE IMPLEMENTATION OF ACT 622 OF THE 1997 LEGISLATURE

#### STATE HEALTH CARE DATA CLEARINGHOUSE

Act 622 of the 1997 Legislature requires that the DHH Office of Public Health include a special report in this edition of the *Louisiana Health Report Card* for submission to the legislature prior to the 1998 Regular Session. The law specifically requires that the report summarize the status of the implementation and funding requirements for continued implementation and operation of the State Health Care Data Clearinghouse.

Act 622 defined the State Health Care Data Clearinghouse in very broad terms to enable the collection of health care and health industry-related data from all state agencies, and from all medical care facilities licensed by the state, including but not limited to hospitals, outpatient surgical facilities, and outpatient clinical facilities. In prioritizing the mandates of Act 622, the Office considered the various health information data streams already in existence and the morbidity data collection experiences of some 36 other states. As a result of these considerations, the Louisiana government team elected to focus initial data collection efforts in the area of Hospital Discharge Data. For the most part, the targeted data is a natural by-product of a very necessary hospital billing activity and is already widely available in a reasonably standard electronic format. Also, the collection of discharge data will place the smallest additional burden on the state's medical care providers. Finally, this particular data speaks directly to the legislatively recognized need to understand "...patterns and trends in the availability, use, and charges for medical services."

The State Health Care Data Clearinghouse law recognizes the importance of government and health care industry collaboration in the setting of data collection priorities and in the development of data collection processes. The Act provides that the Office shall consult with representatives from hospitals, outpatient care centers, health care professional licensing boards and other state agencies. It further provides that the Office of Public Health may create an advisory committee composed of these same industry representatives. In keeping with the Legislature's instructions, the office assembled a Hospital Discharge Data Panel composed of representatives of the health care industry, academia, and state government. That Panel includes representatives from the following health care related institutions and state agencies:

Blue Cross/Blue Shield
Columbia Hospitals
DHH Office of Mental Health
DHH Office of Public Health
Louisiana Health Care Campaign
Louisiana Healthcare Review, Inc.
LA Health Information Management Association
LA Hospital Association
LA Medical Society
Louisiana State University
Metropolitan Hospital Council of New Orleans
Ochsner Foundation Hospital
River Parishes Hospitals
Rural Hospital Coalition
Tenet Louisiana Healthcare

Tulane University
University of SW Louisiana
VHA Gulf States
Willis-Knighton Medical Center
Womans Hospital

This coalition of health care industry, consumer, academia and government representatives was charged with:

- ! Defining the core Hospital Discharge Data elements to be reported to the Office of Public Health in accordance with existing national and international data standards;
- ! Developing standards of accuracy, quality, timeliness, economy and efficiency for the provision of data:
- ! Identifying the most practical methods of collecting, transmitting, and sharing data;
- ! And, developing appropriate rules and regulations to ensure data confidentiality.

The Panel has met seven times since Act 622 was passed, and members have spent more than 4200 hours developing the Rules and Regulations that will govern the data content and operation of Louisiana's Hospital Discharge Data System. The Notice of Intent for Rulemaking will be published in the June or July issue of the Louisiana State Register.

In addition to the intensive Panel work, shortly after the passage of Act 622 the Office of Public Health began preparing for the fiscal management and administration of the new State Health Care Data Clearinghouse. This additional preparation included the following activities:

- ! A cost center was established by the DHH Office of Management and Finance to capture implementation costs and to serve as a repository and control point for information about future expenditure/revenue generation activities.
- ! An in-progress acquisition of computer hardware and software funded by various federal grants was assessed and found adequate to fully support implementation of the Hospital Discharge Data System without imposing additional infrastructure costs on the state.
- ! Work on computer facility improvements, including physical security issues, upgraded airconditioning, and wiring to provide isolated, uninterruptable, and conditioned power is nearly complete. This work was also required by and funded by other projects.
- ! A contract has been approved and work is underway for the development of a software application that will be provided to any hospital, but which may particularly help small hospitals with certain aspects of data submission compliance: a) for hospitals that are still using paper, it will provide a computerized data capture interface which they may elect to use to ease conversion to computerized claims, b) the tool will provide a utility that will "pre-qualify" the data submission and provide hospitals with a report on data quality before they submit the data, and c) the tool will include a utility to facilitate secure file transmission. This will be available soon after the Rulemaking is final.
- ! A central database has been developed to securely house the data (data is projected to start flowing on 10/1/98 for discharges between 1/1/98 and 6/30/98). Enhancements to the quality

control features of the system (data edits) will be ongoing.

! Total staffing needs have been established, and several new staff are already working on making this Hospital Discharge Data System a reality.

This last preparation represents the one significant new and ongoing cost of this effort: the hiring of seven (7) employees to process the hospital discharge data, to manage and analyze the data sets, and to disseminate data and reports required by public health, legislative, academic, health care industry, research, news media and other data users.

In recognition of the importance of the State Health Care Data Clearinghouse, the Office of Public Health identified this program as its **Number One** new initiatives funding priority. The following is a summary of the proposed budget for FY 1998/99:

Salaries	\$ 239,618
Travel	5,000
Operating Services	21,400
Supplies	14,600
<b>Professional Services</b>	50,000
<u>Acquisitions</u>	43,800
Total	\$ 374,418

Research performed before Act 622 became law disclosed that 39 other states have legislative mandates to collect hospital-level data, and that many of those states have already progressed well beyond the collection of inpatient discharge data to the collection of even more challenging "outpatient" morbidity data. The language of the new Louisiana law drew heavily on language incorporated in Arkansas law two years earlier. The special Panel implementing the Hospital Discharge Data portion of Act 622 is attempting to combine the best attributes of similar laws and the associated rules and regulations from several different states, including Arkansas, Missouri, California, Colorado, New Mexico, Washington, Utah and others.

Historically, the Office of Public Health has maintained population-based mortality, natality, abortion, marriage and divorce data sets for use by state government and public health researchers. The data sets cover almost a century of vital events, and have been indispensable in identifying and addressing public health and demographic problems. The population-based "morbidity" data sets authorized by Act 622 offer Louisiana and its health care providers a first opportunity to systematically plan and operate intervention strategies that address the antecedents of death.

The new health care data sets resulting from Act 622 will be even more vital to the core functions of Public Health (Health Assessment, Health Policy Development, and Health Assurance) than the traditional public health data sets in assessing health care utilization, the effectiveness of intervention strategies, and the cost/benefit of treatment regimes. At the same time, these data sets will be a boon to the health industry and communities as they endeavor to better identify unfilled markets or allocate scarce resources.

Full implementation of Act 622 will position Louisiana to take maximum advantage of health care related federal revenue sharing and to use both state and federal dollars in the most responsible manner to meet the health care needs of our people. Access to high quality health information is the key to managing Louisiana's health care future. A fully operational Health Care Data Clearinghouse is Louisiana's gateway to this indispensable information.

# **APPENDIX**

# FOR MORE INFORMATION, PLEASE CONTACT THE LOUISIANA DEPARTMENT OF HEALTH & HOSPITALS OR VISIT OUR SITE ON THE WORLD WIDE WEB

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# www.dhh.state.la.us

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Women, Infants, & Children (WIC) Nutrition Program	(504)568-5065

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